

GOVERNMENT OF INDIA
DEPARTMENT OF ARCHAEOLOGY
CENTRAL ARCHÆOLOGICAL
LIBRARY

CALL No. 913.305/A.A.S.O.R
ACC. No. 4561

D.G.A. 79.
GIPN—S1—2D. G. Arch.N. D./57—25-9-58—1,00,000



ANNUAL OF THE AMERICAN
SCHOOLS OF ORIENTAL RESEARCH

PRINTED FOR THE
AMERICAN SCHOOLS OF ORIENTAL RESEARCH IN JERUSALEM AND BAGHDAD
AND UNDER THEIR DIRECTION BY
THE J. M. FURST COMPANY, BALTIMORE, MARYLAND

THE ANNUAL
OF THE
AMERICAN SCHOOLS
OF ORIENTAL RESEARCH

VOL. VIII
FOR 1926-1927

EDITED FOR THE TRUSTEES BY
HENRY J. CADBURY



415.305
A.A.S.O.R

PUBLISHED BY THE
AMERICAN SCHOOLS OF ORIENTAL RESEARCH
UNDER THE
JANE DOWS NIES PUBLICATION FUND
NEW HAVEN: YALE UNIVERSITY PRESS
SALES AGENTS

1928

CENTRAL ARCHAEOLOGICAL
LIBRARY, NEW DELHI.

Acc. No. 4561

Date 8. 4. 56.

Call No. ~~913.3~~ / A.A.S.O.R.

913.305 ~~811.03~~ / A.A.S.O.R.

AMERICAN SCHOOLS OF ORIENTAL RESEARCH

Founded 1900, incorporated under the laws of the District of Columbia, 1921

TRUSTEES

- CYRUS ADLER, President of the Dropsie College
BENJAMIN W. BACON, Professor, Yale University
GEORGE A. BARTON, Professor, University of Pennsylvania and Philadelphia Divinity School
JAMES H. BREASTED, Professor, University of Chicago
ROMAIN BUTIN, Professor, Catholic University of America
MILTON G. EVANS, President, Crozer Theological Seminary
R. V. D. MAGOFFIN, President of the Archaeological Institute of America, ex officio; Professor, New York University
JULIAN MORGENSTERN, President of the Hebrew Union College
JAMES A. MONTGOMERY, Professor, University of Pennsylvania and Philadelphia Divinity School
WARREN J. MOULTON, President of the Bangor Theological Seminary, representing the Society of Biblical Literature
DANA C. MUNRO, Professor, Princeton University
EDWARD T. NEWELL, President of the American Numismatic Society
JAMES H. ROPES, Professor, Harvard University
WILFRED H. SCHOFF, Secretary of the Commercial Museum, representing the American Oriental Society
CHARLES C. TORREY, Professor, Yale University

OFFICERS

- JAMES A. MONTGOMERY, President, 6806 Greene Street, Germantown, Philadelphia
CHARLES C. TORREY, 1st Vice-President
A. V. WILLIAMS JACKSON, 2nd Vice-President
GEORGE A. BARTON, Secretary and Treasurer, N. E. Corner 43d and Spruce Streets, Philadelphia
WILFRED H. SCHOFF, Associate Secretary, Commercial Museum, Philadelphia
WILLIAM B. STIMSON, Associate Treasurer, 1920 Panama St., Philadelphia

THE PROVIDENT TRUST COMPANY OF PHILADELPHIA, Assistant Treasurer
MESSRS. HENRY, PEPPER, BODINE AND STOKES, Philadelphia, Counsel

CORPORATION MEMBERS

INSTITUTIONS

AMHERST COLLEGE, President George Olds
 AUBURN THEOLOGICAL SEMINARY, Prof. Wm. J. Hinke
 BANGOR THEOLOGICAL SEMINARY, President Warren J. Moulton
 BERKELEY DIVINITY SCHOOL, Prof. Fleming James
 BOSTON UNIVERSITY SCHOOL OF THEOLOGY, Prof. Robert H. Pfeiffer
 BROWN UNIVERSITY, Prof. Henry T. Fowler
 BRYN MAWR COLLEGE, President Marion E. Park
 CATHOLIC UNIVERSITY, Prof. R. Butin
 COLUMBIA UNIVERSITY, Prof. R. J. H. Gottheil
 COMMERCIAL MUSEUM (Philadelphia), Wilfred H. Schoff, M. A.
 CORNELL UNIVERSITY, Prof. Nathaniel Schmidt
 CROZER THEOLOGICAL SEMINARY, President Milton G. Evans
 DROPSIE COLLEGE, Prof. Max. L. Margolis
 EPISCOPAL THEOLOGICAL SCHOOL (Cambridge), Prof. Max L. Kellner
 GARRETT BIBLICAL INSTITUTE, President Carl Eiselen
 GENERAL THEOLOGICAL SEMINARY, Prof. L. W. Batten
 GOUCHER COLLEGE, President Wm. W. Guth
 HARTFORD THEOLOGICAL SEMINARY, Prof. Lewis B. Paton
 HARVARD THEOLOGICAL SCHOOL, Prof. D. G. Lyon
 HAVERFORD COLLEGE, Prof. Elihu Grant
 HEBREW UNION COLLEGE, President Julian Morgenstern
 JEWISH INSTITUTE OF RELIGION, President Stephen S. Wise
 JEWISH THEOLOGICAL SEMINARY, President Cyrus Adler
 JOHNS HOPKINS UNIVERSITY, Prof. Paul Haupt †
 LUTHERAN THEOLOGICAL SEMINARY (Gettysburg), Prof. Herbert C. Alleman
 LUTHERAN THEOLOGICAL SEMINARY (Philadelphia), Prof. C. T. Benze
 MCCORMICK THEOLOGICAL SEMINARY, Prof. Geo. L. Robinson
 MOUNT HOLYOKE COLLEGE, President Mary E. Woolley
 NEWTON THEOLOGICAL INSTITUTION, Prof. W. N. Donovan
 OBERLIN GRADUATE SCHOOL OF THEOLOGY, Prof. Kemper Fullerton
 PACIFIC SCHOOL OF RELIGION, Dean Wm. Frederic Badé
 PHILADELPHIA DIVINITY SCHOOL, Prof. Geo. A. Barton
 PITTSBURGH THEOLOGICAL SEMINARY, President John McNaugher
 PRINCETON UNIVERSITY, Prof. D. C. Munro

† Deceased.

REFORMED THEOLOGICAL SEMINARY (Lancaster), Prof. I. H. DeLong
 ROCHESTER THEOLOGICAL SEMINARY, President Clarence A. Barbour
 SAN FRANCISCO THEOLOGICAL SEMINARY, Prof. E. A. Wicher
 SMITH COLLEGE, Prof. Irving F. Wood
 SOUTHERN METHODIST UNIVERSITY, Prof. J. H. Hicks
 SOUTHWESTERN BAPTIST THEOLOGICAL SEMINARY, President L. L. Scarborough
 SYRACUSE UNIVERSITY, Prof. Ismar Peritz
 THEOLOGICAL SEMINARY OF THE REFORMED CHURCH IN AMERICA (New Brunswick), President W. H. S. Demarest
 TRINITY COLLEGE, Prof. F. C. Babbitt
 UNION THEOLOGICAL SEMINARY, Prof. Julius A. Bewer
 UNIVERSITY OF CALIFORNIA, Prof. Wm. Popper
 UNIVERSITY OF CHICAGO, Prof. J. H. Breasted
 UNIVERSITY OF MICHIGAN, Prof. Leroy Waterman
 UNIVERSITY OF PENNSYLVANIA, Prof. James A. Montgomery
 UNIVERSITY OF TORONTO, President Robert A. Falconer
 VASSAR COLLEGE, Prof. Wm. Bancroft Hill
 WELLESLEY COLLEGE, Prof. Eliza H. Kendrick
 WESTERN THEOLOGICAL SEMINARY (Pittsburgh), President Jas. A. Kelso
 XENIA THEOLOGICAL SEMINARY, President M. G. Kyle
 YALE UNIVERSITY, Prof. Chas. C. Torrey
 THE PRESIDENT OF THE ARCHAEOLOGICAL INSTITUTE, ex officio
 PRES. WARREN J. MOULTON, representing Society of Biblical Literature
 MR. WILFRED H. SCHOFF, representing American Oriental Society

HONORARY MEMBERS

MRS. MORRIS JASTROW, *Philadelphia*
 HON. R. S. COOKE, *Baghdad, Iraq*

LIFE MEMBERS

REV. PROF. HERMAN E. HEUSER, *Ocebrook Seminary*
 MRS. MARY BEECHER LONGYEAR, *Brookline, Mass.*
 DR. LUDLOW S. BULL, *Metropolitan Museum, N. Y.*

PATRONS

DR. W. F. ALBRIGHT, <i>Jerusalem</i>	MR. ALBERT M. GREENFIELD, <i>Philadelphia</i>
DR. THOMAS G. ASHTON, <i>Philadelphia</i>	MR. SAMUEL F. HOUSTON, <i>Philadelphia</i>
PROF. GEORGE A. BARTON, <i>Philadelphia</i>	PROF. JAMES R. JEWETT, <i>Harvard University</i>
MR. LOOMIS BURRELL, <i>Little Falls, N. Y.</i>	MRS. CHARLES P. NOYES, <i>St. Paul, Minn.</i>
MISS MARY E. CONVERSE, <i>Philadelphia</i>	MR. JULIUS ROSENWALD, <i>Chicago</i>
PROF. ELIHU GRANT, <i>Haverford, Pa.</i>	MR. LESSING J. ROSENWALD, <i>Philadelphia</i>
MR. HAROLD WIENER, <i>Jerusalem</i>	

STAFF OF THE SCHOOL IN JERUSALEM

1927-28

W. F. ALBRIGHT, Ph. D., *Director*
 J. M. P. SMITH, Ph. D., *Annual Professor*
 CLARENCE S. FISHER, Ph. D., Sc. D., *Professor of Archaeology*

1928-29

W. F. ALBRIGHT, Ph. D., *Director*
 W. R. TAYLOR, Ph. D., *Annual Professor*
 CLARENCE S. FISHER, Ph. D., Sc. D., *Professor of Archaeology*
 HENRY T. FOWLER, Ph. D., LL. D., *Honorary Lecturer*
 W. H. P. HATCH, Ph. D., D. D., Th. D., *Honorary Lecturer*

STAFF OF THE SCHOOL IN BAGHDAD

1927-28

GEORGE A. BARTON, Ph. D., LL. D., D. D., *Director*
 EDWARD CHIERA, Ph. D., *Field Director*
 LEROY WATERMAN, Ph. D., *Annual Professor*
 EPHRAIM A. SPEISER, Ph. D., *Honorary Fellow*

1928-29

GEORGE A. BARTON, Ph. D., LL. D., D. D., *Director*
 ROBERT H. PFEIFFER, Ph. D., *Annual Professor*
 CLARENCE S. FISHER, Ph. D., Sc. D., *Professor of Archaeology*
 HENRY T. FOWLER, Ph. D., LL. D., *Honorary Lecturer*
 LEROY WATERMAN, Ph. D., *Honorary Lecturer*

FIELD SECRETARIES

PROF. MARY I. HUSSEY, Mount Holyoke College, South Hadley, Mass.
 REV. ROBERT O. KEVIN, Box 25, Bennett Hall, University of Pennsylvania,
 Philadelphia

TABLE OF CONTENTS

Southern Kurdistan in the Annals of Ashurnasirpal and Today.	
EPHRAIM A. SPEISER	1
Miscellaneous Antiquities from Southern Babylonia. RAYMOND P.	
DOUGHERTY	43
The American Palestine Exploration Society. WARREN J. MOULTON	55
On the So-Called Sumero-Indian Seals. GEORGE A. BARTON . . .	79

TO THE BRITISH AUTHORITIES IN IRAQ IN
APPRECIATION OF THEIR HELPFUL ATTITUDE

SOUTHERN KURDISTAN ¹

IN THE ANNALS OF ASHURNASIRPAL AND TODAY ²

EPHRAIM A. SPEISER

I. THE SURVEY

The outstanding feature of the modern district of Sulaimania is its marked and complete uniqueness. Chorographically, linguistically, and economically the region differs decidedly from the remaining districts of south-eastern Iraq as well as from the strips of Persian hill-country on which it borders. With the physical geography of the land we shall deal presently. The current language is Kurdish. But the local dialect, known as Soran, is not at all at home with the other four subdivisions of the language spoken by the Kurds. So much so that the Kurds themselves designate the speech of Sulaimania as *Kurdi*, while the remaining dialects are known by the general name of *Kurmanji*.³ And lastly, most of the district is blessed with a rich and perennial water supply, so rare a phenomenon in these parts.

Nature appears to have planned this sweeping aloofness of the region of Sulaimania.⁴ The lie of the land encourages separatism to a pronounced degree. Formidable mountain ranges wall off the district from the rest of the world and the avenues of approach are few and far apart.

¹ If we consider the administrative districts into which modern Iraq is divided, the region discussed in the following pages is practically identical with the present district of Sulaimania.

² The present article is a direct result of one of the several surveying tours which I carried out during my stay in Iraq, while Annual Professor of the American School of Oriental Research in Baghdad. My warm thanks are due to the Guggenheim Foundation, whose Fellowship enabled me to work in the Orient for two years, and to the Dropsie College for covering the actual cost of the survey.

³ Cf. E. B. Soane, *Kurdish Grammar* (London, 1913), Introduction; R. F. Jardine, *Bahdinan Kurmanji* (Baghdad, 1922), p. 1.

⁴ Modern names are given in a popularized phonetic spelling, the forms found on official maps having been followed wherever possible. To take a typical example, only a few pedants will say today *Sulaimaniyya*; on the other hand, *Sulaimani* is a short cut discovered by British officials. The vast majority say *Sulaimania*. Etymological spellings are given only in instances where the meaning of a given name is of consequence. Old names, especially those found in cuneiform records, are printed in italics. By retaining the scientifically exact form throughout, this essay would have been rendered unnecessarily cumbersome, while the actual present pronunciation would then be unrecognizable in many cases.

The heart of the region is the valley of Tanjero, the right arm of the Diyala. Starting at the foot of the impressive Pir Omar Gudrun⁵ the stream skirts Sulaimania on the south-west. The Asmir and Gwezha ranges flank the valley from the north, Baranand⁶ guards it on the south. The Gwezha mountains expend themselves, however, near Muhan, leaving the north unprotected as far as the Awraman range, whose massive semi-circle protects the east also. A broad and regular basin is thus formed, which is an inspiring sight to behold. *Shahr-i-zur*, "the mighty place (city)" they used to call the section. A mighty place it has remained. The Zahn river rushes down to the Tanjero with the rich tribute of the Awraman mountains; secondary tributaries help to lay the foundation for the extraordinary fertility of the whole area. The Tanjero, thus powerfully reinforced, turns now determinedly southwards and breaks through the south-eastern wall of Shehrizor. Presently it is joined by the Sirwan, the Persian branch of the Diyala, and the united waters, henceforward known by their common name, sweep on past the Qara Dagħ mountains towards Baghdad and the Tigris.

The gorge of the Diyala is one of the few avenues that lead to the well-sheltered basin just described. The Sirwan connects with the lands of ancient Media and the Diyala pursues its way to the territories of ancient Accad. The shortest route from Babylon must have entered Shehrizor through this gorge; it should be noted that the natural center of gravity in the valley of Tanjero lies in the neighborhood of Halebja and Gulambar (Khormal)⁷ and not near Sulaimania which is fifty miles to the west.⁸

⁵ The Kurds have reduced the name to Pir Mugrum.

⁶ Also known as Gilzerda Dagħ. In these parts there are often alternative names for mountains and rivers. The latter have frequently separate names for several particular sections. Thus the Tanjero is known as the Obara Chai in its early course; the Tauq Chai is Tainai until it passes the gorge of Basirra.

⁷ The change of Gulambar to Khormal (gulambar > gurambal > gurnal > hurnal) is a good instance of the Kurdish tendency to reduce words *ad minimum*. This is true not only of proper names but also of words and phrases of Kurdish as compared with the cognate expressions in Persian. A similar radical evolution in place names has caused the name of the city Arbil to be pronounced by the Kurds Awler (arbil > arwil > awril > awlir); at times one also hears Hawler, as no cockney can outdo the Kurd in misplaced aspiration. Such cases as these should warn us against setting too much store by identifications of sites based on dubious similarity of sounds. If the comparatively recent Gulambar (a Persian word meaning 'the amber flower') has undergone such striking changes it is practically hopeless to recover from under the debris of Kurdish nomenclature what Lullu names there may have survived through three millennia. It is only in the most obvious instances that reliance may be placed on identifications which are supported only by phonetic resemblances.

⁸ Gulambar is identified by Herzfeld with Nimarraħ which lay on the main road

Two less important tracks fork off from Halebja: one goes west, across the Awraman, to Persia; the other leads north through Gulambar and Penjwin to lake Urmia. Both routes traverse difficult mountain territory and are suitable for caravans only.

Outside Shehrizor proper and against the mountains that form the north-eastern wall of the corridor of upper Tanjero, here but an insignificant stream, lies Sulaimania, the modern capital of the district. This town of some 12,000 inhabitants is comparatively recent. It was founded in 1779 by the once prominent Baban family. Sulaiman Pasha of Baghdad was the eponym of the new settlement.⁹ Sulaimania is in a favourable position for a capital of the district. As we have seen, the town commands an opening into Shehrizor. The route from Halebja to Sulaimania continues in an almost straight line to the Lower Zab and the old *Nairi* lands across the river. The route is mountainous and difficult but by no means impenetrable for caravans. To the north, across the Asmir range against which the town is huddled, a track takes you up to the valley across where it meets the Muhan track and connects with the northern mountain districts. On the south there is a route across the Tanjero and the Baranand range to the valley of Qara Dagħ, and from there on through Ibrahim Khanji to Kifri and the plain of the Adhaim.

The most important route, however, is the one to the west. Having passed the Tasluja obstruction you are in the plain of the Tainal (ancient *Radannu*). From here on the road proceeds through a narrow valley until a mountain barrier is reached with but one outlet to the outside world:¹⁰ the impressive Bazian Pass (Fig. 1), the Pass of *Babite* of the cuneiform records. Once out of this easily defensible gate and in the valley of Chemchemal, your contact with the rest of the world is re-established. There will be no trouble in reaching Altun Kopri, 'The Golden Bridge' on the Lower Zab, if you strike the route to the north-west; the road to the south-west will take you to Kirkuk in the territory of ancient *Arrapha*.

The Bazian Pass at the extreme west of the district of Sulaimania is thus the counterpart of the Diyala-gorge gateway at the south-eastern end. The

that connected Ctesiphon with Ganzaca, two of the most important cities of the Sassanian Empire; cf. Ernst Herzfeld, *Paikuli* (1924), p. 8. The Iraq Government expects to build a road connecting Shehrizor with Khanaqin through the gorge of the Diyala.

⁹ Cf. E. B. Soane, *Through Mesopotamia and Kurdistan in Disguise* (1924).

¹⁰ There is another pass ten miles southeast of Bazian which is called *Derbend-i-Basirra*; it represents the gorge of the Taug Chai through the Qara Dagħ range. In importance, however, and in usefulness it does not compare with the Bazian Pass.

gorge connects with the territories that once belonged to the Babylonian sphere of influence. The pass opens upon old Assyrian districts: two main entrances to an important and coveted region, communicating with lands that were respectively controlled by mutual and traditional enemies.

The districts which run parallel to the valley of Tanjero may be dismissed with a few general remarks. To the south of Shehrizor and separated from it by the Baranand range lies the fertile valley of Qara Dagħ (Fig. 2) which is bounded on the south by a mountain range of the same name. South of the Qara Dagħ we have a third parallel valley which is usually designated as Sangaw. The Qara Dagħ section gravitates decidedly towards Shehrizor. Sangaw's connections are rather with the south and west, the mountains to the north forming too formidable a barrier. This fact played a part in the division of that area into administrative districts or 'liwas': Qara Dagħ is part of the liwa of Sulaimanja; Sangaw belongs to Kirkuk although the valley is considerably nearer to Sulaimania in an air line.

The northern neighbours of Shehrizor have been mentioned in connection with the routes that lead in that direction. The country is distinctly mountainous but the divisions not so clear-cut as in the south. Consequently, the contact of Shehrizor with the north is a good deal more intimate.

The writer had the opportunity to study some of the archaeological remains in the region of Sulaimania from January 26 to February 16, 1927. The work had to be done hastily and on a restricted scale owing to the unsettled political conditions which then prevailed in that section of Iraq. A Kurdish insurrection was in progress at the time and travelling freely was out of the question. The circumstances of this local uprising are so characteristic of the district as to merit a brief description.

Until about the middle of the last century Sulaimania was ruled by a dynasty of semi-independent Kurdish Pashas. The geographical position of the district had, of course, much to do with the situation. But in 1851 the Turks unseated the local rulers and established in their stead a Qāim Maqām who was to be responsible to the central government. This afforded an unusual opportunity to an old family of Sheikhs that had established itself in Sulaimania some years earlier. Looked upon as religious leaders, they knew well how to make capital of the inherent fanaticism of the Kurds. Excesses were encouraged until many Jews and Chaldeans were forced to abandon their faith. With the growth of the Sheikhs' power went a steady increase in wealth. Eventually the Qāim Maqām became a mere puppet in the unscrupulous hands of the actual leaders of the land. The submission of the officials was not entirely unprofitable to them, and lucrative inactivity was doubly welcome to Turks of the old order.

The strong man of this Kurdish Saga was one Sheikh Sa'id. Fully as astute as he was energetic, he proceeded to raise the power of the family to yet unprecedented heights. The rumor was spread abroad that the Sheikh possessed the power of divination. But his methods were far from saintly. Some would even have it that Sa'id never ventured a prediction that could not be fulfilled presently with the aid of bullet or dagger.¹¹ In any case, the commercial life of Sulaimania was completely and effectively paralyzed and the town suffered from a reign of terrorism unheard of even in the Orient.

What Sheikh Sa'id failed to take into account in spite of his great shrewdness was the fact that power has in each individual instance its definite point of saturation; also that the gods of the East are inordinately jealous. The uncrowned king of Sulaimania had grown to be more than a local potentate and the Sultan became sufficiently interested to look into the matter. But the lid was not to come down for a while yet. Irony had still a trick left with which to amuse Fate. Sheikh Sa'id appeared before Abdul Hamid but the two rascals were too much alike. They understood each other perfectly and the Sheikh was sent home with fresh honors.

However, this blissful state of affairs was not to last very long. The revolution of 1909 which Abdul Hamid's despotism had finally brought about, made Turkey nominally constitutional. A heroic attempt was made to fill important government positions with honest men. Among those to go was the old and weak Wali of Mosul. The new governor was happily an efficient man who was determined to clean up his district. The Sulaimania outrages did not escape his notice and he summoned Sheikh Sa'id to Mosul to answer for his deeds. The proud Kurd, now past eighty, arrived in Mosul like a conquering prince. But here a street disturbance took place during which the Sheikh was murdered by an unknown hand.¹²

The Empire-wide agitation that followed does not interest us here. From accusers the authorities turned defendant. Sheikh Mahmud was appointed Sa'id's successor and the misrule of the son soon outdid the father's best efforts. He made up in severity for what he lacked in astuteness. Besides, Mahmud has a single-track mind and this made matters even worse. For his particular obsession was a haunting conviction that he was born to become king of Kurdistan. Life in a world so peculiarly its own as Sulaimania could only serve to strengthen that feeling.

The end of the World War gave Mahmud his great chance. The British occupation force found it very difficult to deal with this proud, half-mad

¹¹ Cf. Soane, *Through Mesopotamia*, for the most comprehensive account on conditions in pre-war Sulaimania.

¹² See Gertrude Bell, *Amurath to Amurath* (1911), p. 250.

prince whose country was so natural and formidable a citadel. The absurd, gallant little man dared defy the British Empire. Two brigades were sent up to the Bazian Pass where the first battle was fought, as all battles for the possession of the Sulaimania district must be. Sheikh Mahmud was defeated, captured and exiled to India. Upon a solemn promise to conform he was, however, not only pardoned, a short time later, but also made Mutaşarrif, or governor, of the liwa. But this influential post and the revenue of a hundred villages failed to satisfy the man who would be king. Before long an independent government was set up again. There ensued long periods of wearying hostilities. Driven out from Sulaimania, Mahmud retreated to the mountains in the north-east and, having established his headquarters in Penjwin, he continued to harass the district for two more years. At last his resistance weakened. His Kurds began to grow restive. They would not pursue a vision on empty stomachs. The final and unconditional surrender came in June, 1927.

However, at the beginning of the year the outlaws were still at large. Strong convoys of armored cars kept Sulaimania in touch with the rest of Iraq. The interior of the liwa could not be reached without heavy escorts of mounted police. And in no case was it permitted, or for that matter advisable, to stray away from the convoy for several hundred yards. Under these circumstances an archaeological survey of the district was bound to be hasty and restricted.

The convoy with which I was to make the trip to Sulaimania left Kirkuk at dawn, on the 26th of February. It had rained heavily the day before and the slippery roads could ill support our heavy cars. What with the difficult grades, the heavy fog, and the need to keep the cars close together, our progress was painfully slow. Chemchemal was reached about noon but its splendid mound which must have once commanded the extensive valley could only be noted in passing. The ten miles that separate Chemchemal from the Pass of Bazian required close to two hours although a metalled road leads to the very entrance of the pass. As there were some twenty miles of dirt-track ahead of us the convoy leaders were not very hopeful as to what the rest of the journey held in store for us.¹³

At all events the officers counted on reaching Sulaimania by nightfall. But in the next three hours we advanced barely a mile. The mud was so heavy that time and again it was necessary to carry the cars and trucks over the

¹³ In the summer of 1927 the road through the pass was considerably improved and traveling there will from now on be tolerable even in bad weather. At all events, it is not likely that a mail convoy will again be bogged in Sulaimania for three weeks, as was the case in March, 1927. Cf. Fig. 3.

bad spots by main force. No wonder that Ashurnasirpal speaks of those roads as *ša ana mētiq narkabâli lâ šitkunu*.¹⁴ They were not intended for wheels, certainly not in the winter. Although no one was prepared for a night out, the order to encamp was given shortly after sunset and the ten cars were eventually brought up together. In the meantime I had a chance to look around a little. In the pass itself there are still to be seen remains of the gate with which Abdurrahman Pasha fortified the entrance more than a century ago.¹⁵ About a mile and a half west of the entrance a steep mound, Girdi Gopala (Fig. 4), rises close by the track. Its position identifies it immediately as the sentinel of the pass and the fragments of pottery with which the mound is covered suggests the period of Early Iron as the time of the foundation of the site which lies buried under it. The snow-covered top of Pir Omar Gudrun, 'Grandfather Omar,' is seen behind the northern wall of the pass. One hardly realizes that the peak is twenty miles away, for the impression it makes is as of a white head looking in over the shoulder of someone in front, as it were, and placidly contemplating the happenings down below in the high and narrow channel of the pass. And the all but impenetrable range which the pass has forced asunder is more than a mere dividing line across a territory of so many square miles: it is an ominous boundary meant to keep nations apart. This indeed is the real part in history that Bazian has been filling, constantly and efficiently.

Lying atop a mud-covered Ford van I was suddenly awakened from my musings by a feeling of intense cold that can, in these mountains, descend upon one without any warning. The rest of the night was wasted on vain attempts to keep warm. At dawn everything, our gum-boots included, was covered with a fine sheet of rime. However, our engines were the worst sufferers and it took us fully three hours to bring them to. From then on, throughout the cloudy forenoon, it was a continuous process of pushing and carrying and skidding. At length, the bridge on the Tainal was sighted and everyone heaved a sigh of relief: the remainder of the road to Sulaimania is mostly metalled.

About eight miles past the bridge the road is blocked by the Baranand range. The steep pass of Tasluja that takes one across is another serious obstacle to winter traffic (Fig. 5). While the cars were slowly working their way up I had a chance to climb the peak on the south of the pass, now occupied by a military post, to get a general view of the land ahead of us. In the meantime the mists had lifted, the clouds dispersed and the sun came out from its

¹⁴ *Annals* II, 76.

¹⁵ Cf. C. J. Rich, *Narrative of a Residence in Koordistan* (1836), I, 59.

three days' retreat. The glittering band of the Tanjero to the south-west and the level stretches to the north and north-east were visible for many miles. The landscape was dominated by the majestic Gudrun, now seen in full, with the Awraman range as counterattraction in the north-east. Between the two prominent landmarks, due east from Tasluja and against the opposite wall of the broad valley, lay Sulaimania, bleak and colorless.

When I got back to the road most of the cars had toiled their way up to the crest of the pass. Presently we were sliding down the eastern slope of the range. The rest of the journey was uneventful. From the road we noted the tall mound of Kelespi which rises ziggurat-like about three miles south-east of Tasluja. A masonry bridge, built in Turkish times, took us across the incipient Tanjero, here known as the Obara Chai. Soon afterwards we reached Sulaimania to rediscover the blessings of hot tea after two cold and strenuous days.

So far there had not been many mounds that could be noticed from the road. But there were enthusiastic reports about the number of ancient sites further down the Tanjero, or in Shehrizor proper. Both the British officers who knew that country thoroughly and the natives whom I questioned about it were unanimous in their opinion. It was, therefore, all the more disappointing to me to gather, upon further inquiry, that my chances for proceeding to Halebja were very slim. Most of the police were out on the annual sheep-count and few could be spared for the necessary escort. However, the political administrator, Captain Lyon, would not let this stand in my way. Keenly interested in archaeology himself, he put his administrative tour to the Halebja region several weeks earlier than he had planned originally so as to make it coincide with my trip. I was thus to enjoy for two weeks both his delightful company and his expert advice with regard to local conditions. As the trip was set for two days later I had that much time for exploring the immediate neighborhood of Sulaimania.

Eight miles south-west of the town lies the village of Jaishana which has lent its name to a series of caves, two miles farther. The caves occupy the topmost part of a protruding ridge of the Baranand Dag. The entrances face north and, as Nature has arched them superbly in red limestone, they present to the valley below a very impressive front. Easily discernible from Sulaimania, the front part, when bathed in sunshine, is a marvellous sight, as of a golden façade of a fantastic castle rearing its head daringly towards the sky. The Sulaimanians will tell you wondrous things about these caves. They speak of horsemen carved out in dark niches, and of mysterious writing on the walls. But if you ask them whether they ever saw the things they describe, they will invariably give someone else as the source of their informa-

tion. None the less, however little store I set by these tales, I was glad of the opportunity to visit the caves.

Accompanied by eight mounted policemen and armed with official letters to the head of the village I arrived in Jaishana on the 29th of January, at noon, after a two-hour ride. The old *keokha* (headman) was rather sulky about our errand. He proceeded to guide us to the caves with reluctance, taking with him an escort of his own. Perhaps he anticipated punishment at the hand of the rebels for the help which he was compelled to render us.¹⁶ The path to the caves was steep and winding. About one mile from the village there is a slit in the mountain wall, the beginning of a steep pass that leads to the caves and across the range. The entrance to the pass is barred by a huge mass of rock which is called by the natives *Qal 'at Hazar Merd*, 'The Castle of Thousand Men' (Fig. 6). It is indeed a natural fort and its western wall is perpendicular and 150 feet high. Inside the 'castle' there is one large reservoir and several smaller ones, all hewn out in the rock and regular. The main entrance is from the east. The whole is wonderfully fitted to defend the passage, a task which it must have been called upon to perform more than once. The Kurdish name harks back, no doubt, to some heroic exploits of a brave group of warriors.

The caves are about a mile up the pass. The last eight hundred feet, from the point where the path across the range branches off to the south, are exceedingly steep. There are actually three caves, of which the middle one has the largest entrance. All are excellently vaulted and the northern cave is said to be very long. In the hour's time that was left until sunset I could discover no trace of writing or sculptures. One of the four *keokha*'s escort insisted that he had seen both in the northern cave, adding, however, that the engravings were far inside the cave and could not be seen except at night and by a strong artificial light. As I had promised Captain Lyon to return to the village before nightfall, for safety's sake, nothing further could be undertaken on the spot. There is no need to emphasize the advisability of investigating the Jaishana Caves more thoroughly and with leisure.

The following day, on our way back, we stopped for several hours at the small, circular mound of Kani-Goma (Map 1), across the Tanjero. The mound lies on what must have once been the main route through the valley,¹⁷ at a point convenient for crossing the gradually expanding river. Of the fragments of pottery found on the surface the blue-glazed ware was most

¹⁶ Several instances of such reprisals were related to me during the trip.

¹⁷ The location of mounds makes it clear that the old route must have passed Tepe Shuankara, below Tasluja, from where it continued through Kelespi and Kani-Goma to Arbat and Bingird.

conspicuous, though the site itself probably goes back to pre-Persian days. At noon, a simple lunch was sent us by the head of the village of Kani-Goma, after which we started slowly for Sulaimania, arriving there late in the afternoon.

It was a fair-sized party that started out for Halebja early the following morning. Apart from an augmented convoy of police, Mr. Lyon took with him his secretary and his cook, while half a dozen muleteers were in charge of the baggage. After leaving Sulaimania the present road meanders on the southern slopes of the Gwezha range before emerging into the plain, near Arbat. The fine mound of Arbat indicated that we were joining the ancient route which passed through Kelespi and Kani-Goma. The old road was the more direct one; the present detour is merely a concession to the recently promoted Sulaimania. Today the tell supports a police post for which the neighborhood has a wholesome respect. Another such post, which was to be our stopping place for the night, has been erected on the mound of Bingird, near the village of Muhan, three hours ride to the east. By means of a system of similar stations the entire district is bound to be brought eventually under perfect control. It is highly significant that, in determining the sites of their police blockhouses, the present authorities could not do better than follow in the footsteps of the ancient rulers of the land; for the mounds on which the posts are built invariably occupy a position of strategic importance.

From Arbat on ancient mounds become increasingly common. Bistansur is three miles south-east; about a mile further in the same direction lies the regular and impressive site of Yasin Teppe, easily distinguishable from the others by its unusual size; Bingird is about four miles further east; and south of this line, across the Tanjero, appears another series of mounds, left there as if for balance. All this, however, is but an introduction to the great plenty that greets one east of the river bend, in the Halebja valley.

The Bingird Post (generally known as the Muhan Blockhouse, Fig. 7) was all primed up to receive our party. A special bungalow was set aside for us and our camp beds were installed there with true military efficiency. The Indian cook of Captain Lyon was soon at work and his offerings were greatly appreciated.

The following day was devoted to the exploration of the neighborhood. We returned to Bistansur where we separated for the day: Captain Lyon went down to the Tanjero to shoot, and I turned towards the mounds for archaeological game. The mounds to be examined were Bistansur, Yasin Teppe, and Bingird itself. Of these Yasin Teppe is by far the largest. (Map 2. Fig. 8.) It is 60 feet in height, practically rectangular in shape, the measurements on the top being about 600 x 660 feet. A wide

moat surrounds the site and two small brooks, together with the near-by flowing Tanjero, could take care, at all times, of the water problem. There is practically no pottery on the surface. Soundings brought up late Islamic ware. Guy Le Strange is undoubtedly right in identifying the site with the medieval city of Shehrizor, the capital of the Kurdish kingdom of the same name.¹⁸

In contrast to Yasin Teppe, Bistansur is rather small and irregular. There is a great deal of pottery, none of which is later than the Persian period. It belongs to the same era as Kani-Goma and the later strata of Bingird. But in point of importance Bingird outranks all the mounds of the neighborhood. A paramount factor is here the position of the tell: it is the key to several vital routes. Bingird blocks the entrance to a valley, known by the rather grim name of the Valley of Death,¹⁹ which is the source from which those routes issue. One goes northwards through Barzinjah; another turns north-east to Kaolos and Penjwin; yet another one leads to the mound of Sarao, at the eastern end of the Valley of Death, from where it continues to Khormal. The importance of Bingird rests, therefore, on sound foundations; and the very position of the tell is sufficient proof that the above roads were in use at the time from which Bingird dates. Conical in shape, except for its recently flattened top to make room for the blockhouse, about seventy feet high, the mound hides undoubtedly many superimposed strata, the oldest of which go back necessarily to high antiquity. The latest level is certainly not later than the Persian period. In digging for the foundations of the blockhouse the police came upon several ancient seals, button-shaped and cylindrical. The description which the sergeant of the post gave me pointed to the usual Achaemenid make which is well known in these parts; but I was not able to see any of the seals myself.

The few hours of soundings at Yasin Teppe brought me for the first time into actual contact with the people of the land (Fig. 9). Months of further intercourse with the Kurds fully bore out my first impressions. Different though the several main divisions of the Kurds may be, some traits appear characteristic of the people as a whole. Physically, the Kurds of Iraq are almost without exception dark and shorthaired, their skulls wide and pronouncedly flat. As one British officer put it, 'The Kurds have no back to

¹⁸ Cf. Guy Le Strange, *The Lands of the Eastern Caliphate* (1905), p. 191, n. 1. For the shape of the mound see Map 2. All the drawings as well as the map of the Zamuani Wars were very kindly prepared by Mr. E. Wilenski, the architect of the Harvard-Baghdad School Expedition to Nuzi.

¹⁹ So named on account of a fierce battle between the Iraq Army and Sheikh Mahmud (in 1025) in which both sides suffered heavy losses.

their heads.' In looking at some typical specimens one cannot help thinking of the figures on the Hittite reliefs. But we had better cede to the anthropologists the right of drawing conclusions from these facts.

In disposition there is a vast difference between the Kurd and the Arab. If I may be excused for a somewhat sweeping generalization, the Kurd lacks the sense of humor which is so noticeable in the Arab. Hence the Arab is largely a child, at times of that delightful type which has been responsible for the Arabian Nights; the Kurd is massive and serious, like many of his mountain ranges; he takes everything with desperate earnestness, especially himself. Where the Arab laughs the Kurd will sulk; burglary, and sometimes murder, take the place of the raids of the Bedouin. The Arab's sense of connection with the rest of his people and with the world at large, his flare for the worldly, his occasionally instinctive feeling for form—degenerate often and just as often reborn in the memories of a great past and through the corrective of a prodigious literature—all these traits have no counterpart in the Kurd. However, settled political conditions and growing enlightenment may bring out hidden qualities for which the people of Kurdistan have hitherto had no adequate outlet.

Mr. Lyon's day on the Tanjero was a great success, and we had for our supper a good supply of snipe, black partridge and wild duck. Mr. Foote, the Special Service Officer in Sulaimania, who had joined Mr. Lyon for the day, helped to make the evening pleasant and animated, the talk centering around places and people in Northern Iraq.

The following morning we were off again for Halebja. As we waded through stream upon stream with stretches of soft, black soil spread out in between, the desirability of this part of Shehrizor required no further evidence. Nor was the unusually large number of mounds with which the plain is sprinkled a mystery to us any longer. Vast flocks of sheep and large herds of cows—otherwise rather uncommon in these parts—with here and there a silent, dark figure peacefully following a primitive plow, filled out the foreground. With a wealth of fruit trees on the enclosing mountains to boot, the plain simply invites invasions. That attacks upon it have not been as common as one might expect is only due to the natural strength of the position of Shehrizor.

On our way to Halebja we first passed Teppe Alma; three hours later we rode by the mound of Bakrawa, to which I shall return presently. The Qāim Maqīm of Halebja had been advised of our visit, so when we arrived there late in the afternoon we found our quarters ready and a splendid dinner waiting for us. As the little town is one of the capitals of the Jaf Kurds a delegation of tribal chieftains, tall and richly dressed, soon arrived to call

on the Political Administrator. But we were quickly reminded that the gay, little town was not always a place of banquets and receptions. While the Kurdish *aghas* were being entertained the news was received that a policeman had just been killed in the course of supervising the count of sheep; the murderer had fled into the mountains. Mr. Lyon quickly organized a pursuing party, but a somber mood took possession of us for the rest of the evening.

The following day our party had to break up for some time. Mr. Lyon went on inspection down the Diyala and I turned back to the mound of Bakrawa to make some soundings in the meantime. (Map 3, Fig. 10.) Next to Yasin Tepe there is no more prominent tell in the whole of Shehrizor. In fact, the mound of Bakrawa is higher than Yasin Tepe, but the steep walls enclose here a smaller surface. The height and regularity of the tell are undoubtedly responsible for the rumors about the Tepe's hidden treasures, which are current among the natives. Unfortunately, these fairy tales are usually credited, and not by the natives only. Soon after the Armistice some treasure hunters organized a six months' campaign, which left a deep and narrow cut on the southern wall of the mound. Other surreptitious digs resulted in further mutilation of the site and left another cut on the northern wall and two tunnels from east and west, respectively. As far as I was able to ascertain no gushers were struck by the diggers, but enough damage has been done, just the same. The loss of some lives is also indirectly due to those excavations. Three Jaf tribesmen visited Bakrawa one day and decided to search the trenches in the hope of finding some overlooked objects. It was just after the rainy season; the high walls of the southern cut could barely support the accumulated moisture. No sooner had the Kurds entered the trench than the flimsy thing collapsed, burying the unfortunate sightseers underneath. Two corpses were eventually pulled out from under the débris, but the body of the third visitor has remained there until this day. Since that time the place has been generally avoided, and I had considerable difficulty in making up a small gang for soundings on the mound.

Of the five days which I spent at Bakrawa only one was entirely free from rain. In these circumstances there was little to do except studying the trenches left open by the treasure hunters. At the same time a gang of ten was opening a small trench from the top to obtain an idea of the later strata. In this way it was possible to work out a general outline of the chronology of the mound.

The most convenient starting point for a discussion of the date of Bakrawa is offered by a large well (Fig. 11) which was laid open by the diggers of the southern trench. The well is built of burnt bricks and is situated at a distance

of 130 feet from the beginning of the present slope. The circumference is 25 feet; the uncovered part of the well is 50 feet high; the total height could not be ascertained without deepening the trench. A similar structure is found in the western part of the tell. It is reached through the tunnel which was mentioned above, the distance from the opening being eighty feet. The tunnel itself is 60 feet up the slope. The circumference is in this case 35 feet.²⁰ It is not improbable that the eastern and southern sides of the mound hide two similar structures.

The top of the southern well is 24 feet lower than the top of the mound itself. A later generation buried the wells under a strong stone floor, sections of which are plainly visible in the southern trench. A similar floor is to be found 10 feet above the first one. Unfortunately, the treasure-diggers were not so obliging as to leave us a record of the remains that went with the floors. The small trench which my gang was able to sink in the few rainless intervals reached the depth of 18 feet. The glazed ware which is characteristic of the Persian Period makes its appearance at the depth of about 14 feet. This would justify a tentative assumption that the well-builders should be assigned to the beginning of the first millennium B. C.

The return journey may be dismissed with a few words. We rode back to Sulaimania where a heavy snowfall had in the meantime cut off all means of communication with the west. After being snowbound for five days we finally managed to get out of the town, reaching Kirkuk two days later, having pushed the Fords most of the way.

II. THE ACCOUNT IN THE ANNALS

I have been hitherto rather long with the descriptions. Shehrizor as a whole has never been treated from the point of view of an archaeologist,²¹ so I have taken the liberty of indicating in broad outlines the background for the events to which we shall now turn. Ashurnasirpal III made the acquaintance of the district with which we have just been dealing in the course of his three campaigns against Zamua. The Annals of that ruthless conqueror give us a fairly detailed record of those wars. (See Map 4.)

²⁰ The positions of both the tunnel and the open well are marked in the sketch of Bakrava Tepe. Map 3.

²¹ The admirable account of Rich referred to above does not deal with Shehrizor proper. After spending a long time in Sulaimania Rich and his party proceeded to Penjwin by way of the Gwezla Pass, north of Sulaimania. The descriptions of the areas covered by Rich have not lost their value and their freshness after more than a hundred years.

The campaigns are described in the second column of the Annals and begin with line 23. The section of the Monolith which describes the Zamuan wars contains several important variants and is a valuable source for comparison. The immediate cause of the wars is the refusal of Nûr-Adad, the prince of Dagara, to remain the vassal of Assyria. All Zamua follows suit. The Pass of *Babite* is fortified and closed up with a wall.²² It is there that the initial battle must be fought. If the Assyrian fails to take the pass, Zamua is definitely lost to the Empire. On the other hand, the loss of the principal gateway to his country need not worry Nûr-Adad very much. His territory was full of natural fastnesses from which he could interest the invader. The rebels, then, had everything to gain while the chances of a complete failure on their part were rather remote. Their apparent recklessness was not without a show of reason; and Ashurnasirpal's task was by no means an easy one.

The Assyrian king did not underestimate his difficulties. The formidable pass could not long detain the invading troops. Fourteen hundred and sixty of the defending force were slain in the narrow passage; *Babite* and the fortresses *Uzi*, *Berutu*, and *Lagalaga* were taken by the Assyrians. This defeat must have shaken somewhat Nûr-Adad's confidence. He sought refuge on an inaccessible mountain. Ashurnasirpal pursued him as far as *Bâra*, which was also captured, yielding a large booty.²³

This concluded the first campaign. On his way home Ashurnasirpal probably left garrisons in the fortresses which he had occupied; at all events, the second campaign continues where the first left off. But before we go on any farther it is advisable to consider briefly the topography of the first expedition. Apart from the passage of the Annals under discussion, there are two other documents which should be considered in this connection, viz., the itinerary K 4675 and the letter Harper 635.²⁴ The itinerary deals with a route east of the Tigris dividing the distance into daily stages. It is badly preserved and incomplete but nevertheless very valuable for our immediate purpose. The starting point is *Bagarri* and thence, through *Sarî* and *Arzuhina*, the traveler arrived on the first day in *Tel-Arzuhiina*. The distance between *Tel-Arzuhiina* and *Dûr-SAL.ANŠU.KUR.MES* was to be covered

²² The fortifications which were erected in the pass by Abdurrahman Pasha (see above) furnish a very striking parallel.

²³ II. 27-33.

²⁴ The connection was first correctly appraised by Olmstead, *JAOI* 38, pp. 230 ff. When it comes to topography, however, it is often difficult to follow Olmstead, who in his identifications is inclined to make too much of precarious similarities of sounds.

on the second day. On the following day *Dûr-Talite* was reached by way of *Maturaba*. The next stage was from *Dûr-Talite*, through *Babite*, to *Lagab-galagi*. The crossing of the river *Radanu* and the trip to *Asri* was left for the fifth day. The journey from *Asri* to *Arakdi* occupied the sixth day, and from there it was a short stage to *Dûr-Ašur*. The rest of the tablet is very much broken up except for the name of the city *Dûr-Tukulti-apal-ešara*, which the itinerary reaches eventually.

The traveler of the Harper letter is more in a hurry as he gets from *Sari* to *Dur-Atanûte*²⁵ in one day and from there to *Ašari* (obviously identical with the above *Asri*) on the following day.

That *Babite* corresponds to the present *Bazian* is now generally accepted.²⁶ As we have seen it is the only natural avenue from the west into the Tanjero valley; it would have been very difficult for Ashurnasirpal to take his chariots through the gorge of Basirra several miles to the south of Bazian; and lastly,

²⁵ *Dûr Atanûte* and *Dûr.SAL.ANŠU.KUR.MEŠ* are doubtless identical. The itineraries show that the same place must be referred to in both versions. The Nuzi tablets enable us to adduce here definite proof: we find there the equation of *SAL.ANŠU.KUR.RA* with *atanu*; also *atanu* is given in several instances as the feminine of *ANŠU.KUR.RA*. The form *sissêtu* was, then, unknown in the neighborhood of Arrapha and *atanu* did duty for both 'mare' and 'she-ass'. Unfortunately I do not have the material ready to hand to quote tablet and line. *Dûr.SAL.ANŠU.KUR.MEŠ* should be translated *Dûr Atanûte* and the reading *Dûr Sissête* must be given up.

²⁶ So Olmstead, *loc. cit.*, p. 230, n. 48, Forrer, *Die Provinzeinteilung des assyrischen Reiches* (1921), p. 43. A different view is taken by Billerbeck, *Das Sandschak Sulaimania und dessen persische Nachbarlandschaften zur babylonischen und assyrischen Zeit* (1898), where *Babite* is identified with a pass west of Billi (p. 23). However, that pass is of no importance as far as the approach into Shahrizor is concerned. Billerbeck's monograph contains a very exhaustive treatment of the Zamna campaigns and the work is throughout painstaking and suggestive. Unfortunately, the maps with which Billerbeck worked and on which he based his own sketch of the country must have been very inaccurate, with the result that his topography is often faulty. Those scholars who based their work partially on Billerbeck's map naturally repeated his mistakes. Even Streck, whose excellent monograph on *Armenien, Kurdistan und Westpersien nach den Keilinschriften* is up to this day a veritable mine of information (published in *ZA*, Vols. 13-15), is not entirely free from Billerbeck's influence. Major C. J. Edmonds, of the Iraq Ministry of Interior, who knows the country exceptionally well and who kindly discussed with me various problems concerning the topography of Kurdistan, pointed out to me several serious errors in Billerbeck's otherwise admirable work. The suggestion, accepted by Olmstead (p. 230, n. 48), that 'the name *Babite* may be found in the Biban near Altun Kopri' is obviously far-fetched; cf. the apposite remarks of Streck (*ZA* 15, 283, n. 1). The suggestion of Sidney Smith made in the second chapter of his *Early History of Assyria* that *Babite* is to be placed at *Pai Takht* above *Sar-i-pul* is exceedingly fanciful.

the closing up of the pass with a wall is only feasible at Bazian. Abdurrahman Pasha did the same thing more than a century ago, and remains of masonry may be seen in the Bazian Pass to this day. From *Babite* to *Dûr-Talite* is a half day's journey according to the itinerary. This fact enables us to locate *Talite* with certainty in modern Chemehemal. Sargon mentions a *Dûr-Tcliti* in a list of eastern cities of importance.²⁷ The considerable size of the Chemehemal mound also compels us to postulate for it an ancient site of no mean proportions.

Olmstead is probably right in identifying *Arzuhiua* and *Tel-Arzuhiua* with Gök Tepe Kebir and Şeghir, several miles east of Altun Kopri.²⁸ Even today the larger one of the two mounds is a landmark that no passer-by can fail to notice. *Dûr-Atanâte* must then be sought in Tepe Kuran, which lies on the direct road from Altun Kopri to Chemehemal. *Arrapha* (Kirkuk) is left out of the itinerary, since it lies too far south of the required route. Ashurnasirpal undoubtedly followed the general direction of our itinerary when he marched to *Babite*; the way through *Arrapha* was not practical not only because of the greater distance but also on account of the fact that at the time of the Zamua wars that city still acknowledged Babylonian supremacy.²⁹

Of the fortresses which the Assyrians captured in the first campaign against Nûr-Adad I would identify *Berulu* with Gopal Tepe. No mound is more fit for the appellation of 'fortress' *par excellence*. *Lagalaga* is the *Lagab-galaga* of the itinerary and the *Tagalaga* of Harper 701. The alternative spellings of the initial consonant indicate a sound *h*. This places the word in one of a larger group of languages, which includes proto-Hittite, Hurrian, and Elamite, where that phonetic phenomenon is well known. The modern village Ulubulagh lies exactly where the itinerary requires us to place *Lagalaga*; and, to judge from the widely differing spellings, the ancient Assyrians found the pronunciation of the name just as strange as the modern form appears to us today.

The position of *Bâra* will be best discussed in connection with the second campaign. Ashurnasirpal starts from *Kakzu* early in the fall of 881 and, having passed *Babite*, directs his troops towards the *Nîsir* mountain.³⁰ That

²⁷ Display I. 20.

²⁸ *JAOS* 37, p. 183, n. 37.

²⁹ So Forrer, p. 46.

³⁰ The account says nothing about crossing the *Radanu*, although the river was certainly in the way. This need not mean, however, that the army did not cross it at all, as Olmstead (n. 49) concludes. Since the second campaign started early in the fall when the rivers are at their lowest, the crossing—so near the source of the stream—

mountain, 'which the Lullu call Kinipa,' is the famous mount of the Deluge Tablet (141) on which the Flood-ship finds a resting place. The identification of *Niṣir* with Pir Omar Gudrun may be considered as absolutely certain.³¹ I have tried to indicate above how impressive the peak appears at close range. But its remarkably-shaped top, especially when snow-capped, also attracts the eye from a great distance. Often visible for more than a hundred miles, it was to the Babylonians the most natural place to perch their ark upon; the hub of the Universe has been placed at times in far less unusual spots.

The Assyrian reaches the foot of the mountain, where he encounters the Bunasians under their chief *Muṣaṣina*. The opponent on the other side of *Niṣir* is *Kirtiara*, the ruler of *Larbusa*. In both cases Ashurnasirpal reports sweeping victories. However, the small number of towns which he claims to have captured (15) and the total of 498 enemies killed, makes one sceptical as to the exactness of the report. Following the expedition into the mountains 150 localities belonging to *Larbusa*, *Dūr-Lullumu*, *Bunais*, and *Bāru* are occupied by the Assyrians. The last event of the second campaign is a march from the camp at *Tukulti-Ašur-ašbat* to the distant mountains *Ganri* and *Edinu*, which form a part of the *Niṣpi* range.³²

The identification of *Niṣir* with Gudrun fixes approximately the position of *Bunais* and *Larbusa*. The first must have extended up to the south-eastern slopes of the mountain, the other occupied the opposite side of the range. In this connection must be considered the brief account of Shalmaneser's III incursion into Zamua.³³ After crossing the *Kullar* mountains the king descends into Zamua through the pass of *Bunais* and captures the fortresses of *Niktiara* and *Nikdima*. The vanquished flee to the sea (unnamed) where the Assyrians deal them a final defeat from vessels which had been hurriedly pieced together. It has been urged that the *Bunais* of Shalmaneser and *Bunasi* of Ashurnasirpal are identical.³⁴ Since in both instances the reference is to the region in the north-eastern end of Zamua the comparison is doubtless justified. The spelling *Bunisai* in Ashurnasirpal's account (II. 24) adds a phonetic confirmation; the common ending in the names *Nikdiara* and *Kirtiara*³⁵ further suggests that we are in the same territory in both cases;

could not have occasioned enough trouble to require a special mention. But when the third expedition reached the *Radanu* in May, when the water is very high, the crossing was naturally stressed.

³¹ So Billerbeck, p. 26, and Olmstead, p. 230, n. 48; Streck (ZA 15, 272) is over-cautious, but his work was completed in 1900, when but little material was available.

³² Cf. Annals II. 33-49. *Edinu* of the Monolith is the *Etini* of the Annals.

³³ Shalm., Annals 50-53; Monolith II, 75-78.

³⁴ By Hüsing in OLZ I, 360.

³⁵ The ending itself is good Hurrian; cf. *Ninuari*, *Arraphari*, etc. in the Nuzi tablets.

and lastly, the occurrence of the name *Kolar*, which is borne today by a mountain range east of the lower Zab, in the latitude of Koi-Sanjak, exactly from where one would descend into north-eastern Zamuja, completes the chain of cumulative evidence.²⁵ The 'sea' about which Shalmaneser speaks is then certainly the Lake of Zeribor; the pursuit followed the valley of Qaracholan or of Qizilja. The smallness of the present Lake of Zeribor, which might be urged against its identification with the 'sea,' presents in reality no serious difficulty. The lake has been shrinking constantly and for a long time. When Rich visited Zeribor as early as 1820 he was told by one of his guides that the lake has sensibly diminished in his own recollection. In the time of Shalmaneser it might have conceivably been the scene of an unpretentious naval battle.

The general location of *Bâra*²⁶ is indicated by the close connection of that town with *Bunais* and *Larbusa*. As *Bâra* is captured by Ashurnasirpal in his first campaign against Nûr-Adad, it should be sought near the western entrance into the Sulaimania valley, hence not far from Tuluja. In any case, *Bâra* seems to have been a convenient starting point for the second expedition which had as its object the clearing of the northern part of the

²⁵ See attached map (5). The suggestion of Billerbeck (p. 46) that *Kallar* must be sought southeast of Koi Sanjak is thus proved correct by the lucky survival of the old name of the mountain range in question. The pass must then be the famous Zinn Bolak Pass between the very high mountains Kuma Worch and Gofar, six miles south of the place where the Lower Zab is joined by the Qaracholan River. This would bring us north of Gudurun, where we have already located *Larbusa*, but names of passes and mountains are certainly older than political divisions; besides, the territory allotted to the principalities of *Larbusa*, *Bunais* and *Bâra* is comparatively limited and, within it, supremacy must have changed hands rather frequently. For practical purposes we have here, in reality, but one small country which at one time was known as *Bâra*, another time as *Bunais*, or the like.

²⁶ *Bâra* has usually been connected with *Til Bâri*, which according to the Synchron. History, III, 20, lay on the Assyro-Babylonian border, cf. Billerbeck 25, Olmstead 230, n. 49. Billerbeck looks for the place in the neighborhood of Koi Sanjak. Streck (ZA 15, 279) finds Billerbeck's suggestion very plausible but refrains from committing himself; he has no doubt, however, that *Bâra* and *Til Bâri* lay in the same neighborhood. I believe that Streck was right in that. *Til Bâri* may be identified with *Bargird* (Kurdish for 'Tel Bar') near the junction of the Lower Zab and the Qaracholan, a most natural place for the boundary between Babylonia and Assyria. But *Bâra* must be sought further south, east of Gudurun, since Ashurnasirpal strikes the town soon after passing *Babite*. The Assyrians speak of slaying 50 Barians in the plain *-ina şcri-* (Ashurn. Annals II, 45), which again suggests the plain southeast of Gudurun. We shall, therefore, stand by the identification of *Bâra* with Girdabor. (See below.) That both *Bâra* and *Til Bâri* belonged to the same country was made probable in the preceding note.

valley. Among the defeated allies are also the *Dûr-Lullumai*, though their city is never mentioned by name. On the other hand, Ashurnasirpal closes his second campaign with an unexpected march from the city *Tukulti-Ašur-ašbat* without telling us how he had got there. The brand-new Assyrian name represents the city 'which the Lullu call *Arakdi*.' Is it likely that *Arakdi* also figured as *Dûr-Lullumi*, i. e., the fortress of the Lullu? Such an assumption would not be altogether unreasonable; however, the above-mentioned itinerary K 4675 leads to different conclusions, and there are other difficulties which will become apparent presently. I would therefore keep the two towns apart and identify *Dûr-Lullumi* tentatively with Kelespi. *Bâra* may be located at Girdabor, 'the mound of Bor,' which lies five miles south of the peak of Gudrun.

All things considered, Ashurnasirpal's second campaign against Zamua was not a great success. The few cities that he conquered had to be recaptured the following year. But we must also bear in mind that the entire expedition may have been in the nature of a reconnaissance to pave the way for a future campaign. The night ride in the *Nišpi* mountains could not have been more than a scouting trip. It is quite probable that Ashurnasirpal was satisfied with the results. Surely, he could not expect to do very much more, starting out so late in the season. All Zamua was not to be subdued in two months. Now that the way into Shebrizor has been cleared, and the enemy in the north temporarily paralyzed, was the time to prepare for a final and decisive blow.

Accordingly, the third campaign sets out in the following year as soon as the rains have ceased. The Assyrian king crosses the Lower Zab, enters Zamua through the Pass of *Babite*, and takes his troops across the river *Radanu*. After a full day's march Ashurnasirpal arrives at the foot of the *Simaki* range, where he receives the tribute of *Dagara*. Another strenuous march, this time at night, brings the Assyrian to the banks of *Turnad*; across the river is the territory of the rebellious prince Arashtua of *Ammali*. The capital is captured and its streets are colored with the blood of its inhabitants. Ashurnasirpal is now determined to strike terror into the hearts of the people of the land; his frightfulness shall deter them from another uprising. *Hudun* and *Kiširtu* are turned to ashes, the youth of the cities perish in the holocaust. All the villages of the valley are levelled with the ground, and the entire country 'as far as the Pass of *Hašmar*' experiences the heavy hand of the invader.³⁷

But the destruction of the valley was of little use so long as the enemy

³⁷ Annals II, 49-60.

retained his mountain fortresses, from where he could always challenge the possession of the plain. Ashurnasirpal was well aware of that. He was also prepared for a fight to the finish. Hence the expedition into the mountains which follows close upon the defeat of Arashtua.

The king of the hill-country was Ameka, who resided in the city of *Zamri*. The road to that place led through a pass that separated the mountains *Lâra* and *Bidirgi*.²⁸ Ashurnasirpal storms the pass and captures *Zamri*, forcing Ameka to seek refuge on a high mountain. The Assyrians follow in pursuit and cross the river *Lallû*, beyond which extends the mountain *Edînu*, where Ameka hopes to bring the onrushing hosts to a halt. But Ashurnasirpal is not to be denied. Enriched with fresh spoils, the Assyrian army drives Ameka across the river *Edir* into the mountains *Suani* and *Elanin*, where no Assyrian king had ever ventured before. Here the remainder of the Zamrite's possessions falls into the hands of the pursuers. In a desperate attempt to save his life Ameka climbs the mountain *Sabua* and Ashurnasirpal is satisfied to allow him to remain there; it was manifestly impossible to continue such a pursuit indefinitely. The dependencies of *Zamri*, including the cities *Arasitku*, *Ammaru*, *Parsindu*, *Iritu*, and *Suritu* offered greater attractions, no doubt. From *Parsindu* a minor expedition is directed against *Arzizu* and *Arsindu*, two cities situated in a formerly unexplored territory. The entire army is to reassemble in *Zamri*.

But the troubles of Ashurnasirpal were not to be over yet in spite of these victories. The Zamuans had still enough strength left to inconvenience the returning Assyrians by blocking the pass between the mountains *Lâra* and *Bidirgi*. Ashurnasirpal was forced to cut for his chariots a way alongside *Lâra* in order to get to his base in *Arakdi*. The reappearance of the troops in the plain was the signal for a series of cities to renew their tribute to the conqueror. But the less pacifically inclined continued to defy the Assyrian. They felt convinced that Ashurnasirpal had had enough of the mountains by that time and that he would not again leave the valley for another punitive expedition. Very likely they were quite right on the whole. They retreated behind the mountains *Aziru* and *Simaki* and established their headquarters in a newly fortified town, called *Mesu*. But the king was too much of a statesman not to realize that, to save his prestige, he must deal with the insurgents. Having brought his troops around the inhospitable ranges, he attacked the stronghold of the rebels from behind. *Mesu* was captured and the survivors were driven by the Assyrians down the slope of *Simaki* until the valley as far as the *Turnad* was covered with the corpses of the pursued.

²⁸ For the element *irgi* cf. the name *Winnirgi* (the wife of Puhishenni, father of Tehiptilla), in the Nuzi tablets.

Thus Ashurnasirpal succeeded at last in subduing the whole of the country. He celebrated the fact with a more constructive piece of work. The old city of *Atlila* was rebuilt and renamed *Dûr-Ašur*. Henceforward it was to be the grain capital of the rich area.

So much for Ashurnasirpal's own account. All in all, we may consider his version as substantially correct. An occasional failure may have been left out of the report, actual successes overstated here and there; but the official description enables us to reconstruct the general run of events with a reasonable approximation to certainty. At any rate, the country never recovered completely from the effects of the wars described above. Within half a century *Zamua* becomes one of the regular provinces of the Assyrian Empire. In the year 828 the high office of Eponym is held by one *Ilumakin-ahu*, the governor of *Mazamua*.³⁹

We still have to tackle the problem of transferring the scene of the third campaign from the Annals into an actual geographic area. The task is not an easy one. Complications arise from the constantly shifting scene of operations and the number of sites involved. This fact accounts probably for the diffidence with which the subject has been treated by former commentators. The suggestions offered have been, therefore, of necessity vague and unconvincing. Personally, I cannot presume to claim for my own results a finality that shall have settled the matter once for all. Individual sites cannot, for the most part, be identified definitely without excavations on the spot. In reality, such identifications are not in themselves vitally relevant. What is, however, of real consequence is the direction which Ashurnasirpal's final expedition to *Zamua* followed. If correctly diagnosed, the course of developments will enable us to gain an insight into the king's immediate aspirations; it would also furnish a means for the interpretation of the political influences that were at work in *Zamua* at the time in question.

The mountains that figure so largely in the battles of the third *Zamuan* campaign have hitherto been generally sought in the region south of *Shehrizor*.⁴⁰ On careful comparison of the Assyrian records with the geography of the country with which they deal, the southern theory proves to be untenable. It is far more probable that we should look for *Ameka* and his allies in the districts that rise to the north of the valley of *Tanjero*.⁴¹ It will be seen that such an assumption is best suited to the documentary and geographic evidence at our disposal.

³⁹ Forrer 48.

⁴⁰ So especially Billerbeck, who is generally followed by Streck.

⁴¹ For the development of *Turnad* into *Tanjero* see Streck, 275 f.

In order to appreciate Ashurnasirpal's strategy we must go back to a campaign with which the king inaugurated his reign. The very first war which the young ruler undertakes is directed against *Numme*, a mountainous and well-nigh inaccessible country. The fortresses and towns of that land are sheltered by the formidable mountains *Urini*, *Aruni*, and *Etini*. After the conquest of *Numme* Ashurnasirpal proceeds against *Kirruri* and *Kirhi*. The entire campaign terminates successfully and the king returns to his capital by way of Arbil.⁴²

The direction of the above expedition can be followed without much difficulty. Thanks to Shalmaneser (Mon. II. 65) we are in position to locate *Kirruri* definitely between Arbil and Rowanduz. *Kirhi* is then north, *Numme* south of *Kirruri*. On his way to *Numme* Ashurnasirpal must have proceeded alongside the Lower Zab, which he probably crossed in the neighborhood of Koi Sanjak. From *Numme* the Assyrians marched northwards, and on their way home they used the direct route through Rowanduz and Arbil. The campaign had undoubtedly as its object the intimidation of the north-eastern neighbors of Assyria so as to leave young Ashurnasirpal a free hand for dealing with more serious problems in the west. Indeed, the Assyrians do not appear again in the east until three years later, when Zamua starts her stubborn revolt.

Etini appears to be the southernmost mountain of *Numme* reached by Ashurnasirpal. After the capture of *Zamri* the king ascends the same mountain in his pursuit of Ameka. A comparison of the two accounts compels us to place *Etini* north of Shehrizor.⁴³

Instructive is, also, the progress of the Zamuan wars themselves. The first campaign—it will be remembered—resulted in the storming of the *Babite* Pass as well as in the capture of the fortresses to the east of it, on the direct road into the valley of Tanjero. The next step was to render further advance possible by forestalling unpleasant surprises from the north. This was accomplished in the course of the second campaign when the territory around Mount *Nisir* was explored and—for the time being at least—occupied. Ashurnasirpal sought obviously to establish contact with the lands which he

⁴² Annals I. 46-68. Cf. Olmstead, *JIOS* 41. 361, n. 33, who takes a different view from the one adopted below.

⁴³ Even Streck (283) is forced to admit that by comparing the passages in which *Etini* is mentioned we obtain for the kingdom of Ameka a location north of the Tanjero, the assumption of two distinct ranges named *Etiai* being less likely. In that case, however, it is impossible to place the other mountains into which Ameka retreats south of Shehrizor without being involved in contradictions. The country of Arashtua is correctly placed by Streck south of the Tanjero (280).

had visited a few years earlier, on his expedition against *Numme*. For further north flowed the Zab and communication with old Assyrian provinces was more simple from there. It was only the country in between, the mountains which formed the dividing line between the drainage areas of the Zab and the Tanjero, that caused the Assyrians some concern. As far as the south was concerned, Ashurnasirpal was markedly free from care.

With the road into Shehrizor thus opened and safeguarded, the conquest of that country was accomplished without much difficulty during the first half of the third campaign. But it was not enough merely to conquer Shehrizor: the coveted land had to be held or the strenuous campaigns had all been in vain. Where was the danger quarter? From his mountain recesses Ameka was able to control Shehrizor with ease; until *Zamri* was captured the possession of Shehrizor was a liability rather than an asset. Now we have seen that Shehrizor was most intimately connected with the mountain-country to the north. One of the mountains in question has been definitely located in the north; it was the north which really worried Ashurnasirpal. Danger lurked in the massive peaks that rise east of Gudrun. By subduing those parts the Assyrians could clear the wedge that split their dependencies on the Lower Zab and in the valley of Tanjero; and the rich and hardly-won Shehrizor would become safe for some time to come. With these points in mind there can be no reasonable doubt as to the position of the kingdom of Ameka.

Yet another argument is worth considering. The alternative theory which would place *Zamri* in the south is *a priori* untenable for two important reasons. In the first place, Baranand and Qaradagh, which run south of the Tanjero, are well-defined, solid ranges in which there is no room for the numerous individual mountains that are mentioned in Ashurnasirpal's account. Secondly, if *Zamri* is to be sought, with Olmstead, near Goeck Teppe,⁴⁴ then the Assyrians wasted an enormous amount of effort in trying to reach it through Shehrizor. The best and shortest way to Goeck Teppe from the west is entirely independent of the Baziau Pass, as it leads from Chemechemal directly south-eastwards. Moreover, the possession of Goeck Teppe could have only the remotest bearing on the safety of Shehrizor.

We can now turn our attention to the topography of the third campaign. Shortly after they entered Zamua through the inevitable *Babile* Pass, the Assyrians crossed the river *Radanu*. It has long been known that Radanu

⁴⁴ P. 235, n. 55. Olmstead considers his case as proved by finding in the Sangaw Valley a Tamar, 'the modern representative of Zamru.' For Goeck Teppe cf. Map 4, which has been furnished by Mr. Wilenski.

is to be identified with Tauq Chai. That part of the Chai which crosses the Bazian Pass-Sulaimania road is called the Tainai Chai. Close upon the rainy season the stream swells to considerable proportions. For the Assyrian chariots the crossing presented sufficient difficulty to merit a special mention in the records. On the same day the invading army arrives at the foot of the *Simaki* mountains. The range is separated from the *Aziru* mountains by a pass or a narrow valley in which lay the town *Mesu* where the Zamuans made their last stand against Ashurnasirpal. The name *Aziru* reminds one of the town *Asri* or *Azari* mentioned in the itineraries which were summarised above. According to the document K 4675 the trip from *Lagabgalagi* to *Asri*, including the crossing of the *Radann*, occupied one day. The Assyrians cover a similar distance (across the *Radann* on to the foot of *Simaki* which adjoins *Aziru*) also in one day. It is therefore very probable that the mountain *Aziru* gave its name to a town which was built at its foot. On comparing distances, *Aziru* and *Simaki* must be identified with modern *Azmir* and its continuation, the Gwezba range. No other range suits the requirements even remotely. There is one further argument in favor of the above identification. Modern *Azmir* and ancient *Aziru* are so close that it will hardly be rash phonetics to consider the two names as one.⁴⁵

While we are on the subject of the itineraries it will be convenient to give some thought to the position of *Tukulti-Ašur-ašbal*. The city 'which the Lullu call *Arakdi*' was, according to K 4675, one day's journey away from *Asri*. Since the last-named town must be sought in or in the neighborhood of Sulaimania,⁴⁶ a day's stage along the valley brings us up to the several mounds which lie within short distance of Muhan. Of those, Bingird is the most satisfactory choice for *Arakdi*, both by reason of the high antiquity of the tell as well as because of its remarkable position which was indicated in the preceding pages. Ashurnasirpal could not have chosen a better place for his headquarters. As a base for operations in Zamuana the place was ideal. Not only could the entire valley be easily controlled from Bingird, but the site was also a most convenient starting point for expeditions into the vitally important mountain country in the north; for, as we have seen, the best tracks covering that territory all converge in Bingird.⁴⁷

⁴⁵ The steps would be *azmiru* > *uzmiru* > *aziru*, while the modern name would go back to a phonetically unaffected form. Cf. the word *litu* 'boundary' of the Nuzi tablets which developed from *limitu* < *lietu*. Olmstead (233, n. 52) supposes a dislocation in the text because the account 'deals with *Simaki* and is still north of the Turnat.' We have seen that *Simaki* belongs properly north of the *Turnat*.

⁴⁶ Rich reports that Sulaimania was built on what had once been an ancient mound.

⁴⁷ Billerbeck places *Arakdi* in the plane of Kitchan (p. 24); Streck in the direc-

From his camp near Simaki Ashurnasirpal reaches a fordable spot on the *Turnad* under the cover of night. Arashtua was evidently taken by surprise. He did not expect the decisive battle before the main Assyrian army arrived in *Arakdi*. But while the posts from *Ammali* were keeping a watchful eye on *Arakdi* and Arashtua still believed himself far from danger, Ashurnasirpal effects the crossing of the river without continuing to *Arakdi*. Now a night march from the vicinity of Sulaimania will bring an army, quite comfortably, to the neighborhood of Yasin Tepe, where conditions for crossing are favorable. The plan appears to have worked splendidly, and for want of hard fighting, the Assyrians use up their excess energy on acts of unparalleled cruelty.

Ammali, *Hudun*, *Kisirtu* and the minor towns of the district must be sought on the right side of the Tanjero.⁴⁸ The modern village of Qisirtu has probably preserved without change the name of the ancient city. Nammal is close enough to *Ammali* and mounds like Girda Quehka and Shakir Tepe bear witness to the antiquity of this region. The *Hašmar* Pass which Ashurnasirpal mentions as the terminus of his latest conquests is hardly anything else than the Derbend-i-Khan, on the western side of the Diyala gorge.⁴⁹ The entire Arashtua episode was, then, enacted on the right bank of the Tanjero.

In settling scores with Arashtua and his allies, Ashurnasirpal occupies only a comparatively small number of towns. This corresponds with the character of the country where we have placed *Ammali* and her confederates; the strip of valley between the Tanjero and the Baranand Dagħ is too narrow for a larger number of settlements. The richest and most spacious part of the valley, or Shehrizor proper, extends east of the bend of the Tanjero as far as the Awraman, and from Gulambar to the south, past Halebja. Here the number of ancient mounds and modern village is probably larger to the square mile, than anywhere else in Iraq. To the Lullu inhabitant, the Assyrian conqueror, or the Sassanian ruler, this section of the land was not less alluring than it is to the Kurd of today.

The most stubborn and determined of the Zamuan battles were waged against Ameka, king of *Zamri*. After the defeat of Ameka 150 towns, not

tion of Hurin (p. 85); Olmstead (6. 232, n. 51) suggests the place where the Tauq stream leaves the Qara Dagħ; i. e., at the Derbend-i-Basirra. None of these suggestions answers the topographic requirements which must be deduced from a comparison of all the relevant passages.

⁴⁸ So already Streck, p. 280.

⁴⁹ Practically the same conclusion in Billerbeck, p. 30; Streck, p. 287. Olmstead, in *JAOS* 41, 346, places the pass too far north.

counting fortresses, fall into Assyrian hands. No wonder that the defendants fought so desperately! But the prize at stake removes also all doubt concerning the position of the kingdom of Ameka. Shehrizor was the best populated province of *Zamri*. To occupy it, Ashurnasirpal had first to capture the mountain fortresses in the northern part of the kingdom. The possession of those strongholds carried with it the ownership of the plain of Shehrizor.

After these remarks it will not be difficult to follow the third campaign to its conclusion. Detailed identifications will not be possible because of the large number of names involved; but the general course of events can be now reconstructed with a sufficient show of reason.

On his march to *Zamri* Ashurnasirpal uses a pass between 'the mountains *Lâra* and *Bidirgi*.' When the return through the pass is blocked, the Assyrians blaze a new trail through *Lâra* and descend to *Arakdi*. *Lâra*, then, is not far north from *Arakdi* and *Bidirgi* must be east of *Lâra*, overlooking Shehrizor. Consequently, *Lâra* must be identified with Kurdiwan and its southern extensions; *Bidirgi* corresponds to the massive group east of Kurdiwan which rises 6000 feet above sea-level. The pass in question is either that of Kaolos or else the narrow passage near Dollasur, three miles further north. In the neighborhood of Kaolos meet the routes that lead to Penjwin from both the Halehja region and Muhan; through Kaolos leads also the shortest route from Sulaimania to Penjwin. *Zamri* lay north of the pass, hence in the region of Ahmad Kulwan.

After the conquest of *Zamri* Ashurnasirpal crosses the river *Lallû* and pursues Ameka on the mountain *Etini*. *Lallû* can be therefore only the Tankabya River and *Etini* the high mountain west of Penjwin. The river *Edir* which defines *Etini* from the other side must be modern Qizilja and the mountains *Suani* and *Elaniu*, where Ameka vainly seeks to stop the Assyrians, may be identified with Kani Miran Dag and its companion to the east. Ameka escapes eventually to the mountain *Sabua* and Ashurnasirpal prefers not to follow. A glance at the map will help us to understand the reason. The Assyrians had got as far as Bistan. To the north flowed the Shalar River and across it rose ranges even more formidable than the ones hitherto encountered. In these circumstances discretion was certainly the better part of valor. Instead of continuing on a wild-goose chase the Assyrians turn now to the far more grateful and profitable task of capitalizing their preceding victories. The remaining fortresses of Ameka are occupied and Parsindu,⁶⁰ which is one of them, receives an Assyrian garrison. I would

⁶⁰ This type of name seems to have been common in the district. Cf. *Arsindu*, II, 73, and *Iffalsundu* of the itinerary K 4675 which lay between *Arakdi* and *Dâr-Akur*,

identify *Parsindu* with modern Parazan on account of its position in the territory with which we have just been dealing. The several ancient mounds in the Qizilja valley may represent some of the remaining towns which the records mention by name. The 150 localities of which Ashurnasirpal proclaims himself master belong largely to Shehrizor, which becomes automatically the prey of the victors, though not without some difficulties. It may very well have been the people of Shehrizor who blocked the pass between *Lâra* and *Bidirgi* forcing the Assyrians to use a roundabout way to *Arakdi* (Bingird). But the ultimate subjugation of the plain was inevitable. So sure has Ashurnasirpal become of his grounds that he rebuilds now the old city of *Attila*, which he renames *Dûr-Ašur*, with the main purpose of collecting there the grain of the rich country. This could be intended only for Shehrizor and there need therefore be no hesitancy in locating *Dûr-Ašur* in Bakrawa. According to the itinerary K 4675 it was an easy day's journey from *Arakdi* to *Dûr-Ašur*. The distance between Bingird and Bakrawa is about five marching hours.

Two minor expeditions remain to be dealt with for the sake of completeness. The first was undertaken from *Zamri* and was directed against *Ata* of *Arzizu*. The result was the capture of *Arzizu*, *Arsindu* together with ten minor places in the *Nišpi* Mountains. As *Nišpi* corresponds generally to the Awraman Dagh the land of *Ata* must be sought south-east of *Zamri*, hence in the neighborhood of *Kal-i-Suren*. The second expedition which terminated in the capture of *Mesu* was referred to above. Since *Mesu* was situated between the mountains *Aziru* and *Simaki* the position of that last stronghold of the Zamuans is not difficult to determine. The town must have lain near the eastern end of the Gwezha Pass which separates Azmir from Gwezha and takes care of the traffic from Sulaimania across the mountains into the Qaracholan Valley. The village of Waldana may be suggested as the approximate site of *Mesu*. The Assyrians probably got across the Gwezha range starting either from Bistansur or from Arbat. *Mesu* was captured and the few that managed to escape were driven through the Gwezha Pass back to the Tanjero, where the remainder was slain. Thus ended the last war-like exploit of Ashurnasirpal in Zamua.

Before this chapter is concluded attention should be called to the remarkable parallel which can be traced between the Zamuan wars and the recent

and which, in pronunciation, did not probably differ much from *Parsindu* (*hualsindu* probably equal to *falsindu*, *farsindu*). For a similar ending compare modern *Piskandi* near the formerly discussed Girdabor. For the itinerary K 4675 see further Peiser in the *Mitteilungen der Vorderasiatischen Gesellschaft* 6, 3, 40 ff.

rebellion of Sheikh Mahmud. Both the Sheikh of Dagara and Sheikh Mahmud contended against overwhelming odds; both carried with them the entire district east of Bazian; the initial battles were fought in the Bazian Pass and in both cases the local princes were defeated. For several successive seasons ancient Zamua and the modern district of Sulaimania were hoping against hope to free themselves from the powers against whom they had rebelled. The Zamuans made their last stand in the neighborhood of Penjwin and it was in Penjwin that Sheikh Mahmud's Kurds finally laid down their weapons. If it is indeed true that history tends to repeat itself the above instances furnish a striking illustration of this tendency.

A Check-up From the Air.

The preceding pages were written in the summer of 1927 in Jerusalem, where I had gone from Persia towards the end of July. On my return to Iraq, in October, I stopped in Beyrout to see Father Poidebard, who has been getting splendid results from an aerial survey of Syria. In the course of an hour the learned Father outlined before Professor Chiera, who was then also in Beyrout on his way to Kirkuk, and myself the advantages for archaeological work to be derived from aerial surveying and the methods which, in his experience, have led to the best results. By way of illustration, we were shown scores of photographs which P. Poidebard had taken on his numerous flights. He had met with particular success in tracing Roman roads and camps, which showed plainly enough from the air but could be hardly followed up from the ground. We left the quiet study in the *Collège de St. Joseph* greatly impressed. It was plain that aerial reconnaissances could, in many instances, be exceedingly helpful in lessening the gap between theory and certainty; consequently, I was anxious for a chance to view from the air the scene of the Zamuan Wars, which I had seen in part from car and horseback, from mound and mountain, in the preceding winter.

When I was back again in Bagdad I spoke to Mr. R. S. Cooke, the Honorary Director of Antiquities, of the work which P. Poidebard was accomplishing with the generous support of the Syrian Government. I also expressed the opinion that a flight over the Sulaimania area would supplement admirably the information which I had gathered there previously. Mr. Cooke's interest in the work need not be stressed before friends of the American Schools. It remained, however, to impart this interest in a convincing manner to the Air Vice Marshal commanding the British Forces in Iraq, upon whose approval the proposed flight must needs depend. Fortunately, Sir Edward Ellington's sphere of interests is by no means limited by his high military rank; he did

not require persuasion. The flight was immediately sanctioned and Squadron Leader, F. H. Coleman, who had flown countless times over the once hostile district, was assigned to take charge of the trip. As the terrain over which we were to fly was mountainous and uneven the small bombing planes were chosen for the journey; a two-seater need not be afraid of a forced landing even in places where a descent would be suicidal to a larger plane. In consequence, our party was distributed in three airplanes. Mr. Cooke made himself comfortable in one, a second plane carried wireless equipment, while I took my place in the observer's seat behind Squadron Leader Coleman. A special aerial camera was fitted into my seat after I had received some instruction in using the apparatus.

We took off from the aerodrome in Hinaidi, near Baghdad, in the morning of November 23, 1927. The trip to Kirkuk was uneventful on the whole except for the striking panorama of Baghdad just at the start. I had gone over the same distance, by car and train, several times and it was not difficult to recognize from the plane the mounds that I had visited and studied several months earlier. We crossed the Hamrin Mountains, noted, a little later, the winding course of the Tauq Chai and landed, in another twenty minutes, in Kirkuk, on a well-kept landing ground.

It was our intention to fly over the Sulaimania area on the following morning. With the aid of the latest maps points of special interest were marked off and Mr. Coleman planned his route accordingly. We assembled on the flying field just as the sun was rising above the eastern hills and everything was got ready for the take-off. We waited only for the weather report; but the wireless from Sulaimania brought unfavorable news. The Rashaba was blowing—a wind known for its exceptional vehemence and peculiar to the part of the Tanjero Valley over which it was our intention to pass—which meant not only a very uncomfortable journey, but also poor visibility. It was therefore decided to wait a day in the hope that the Rashaba would die down in the meantime. The delay gave us the opportunity to circle over the excavations at Nuzi, where Professor Chiera was pursuing his studies of the Hurri-Mitanni, and the near-by mounds of Wiran-Shehr; taking photographs of the places of interest as we flew over them. Mr. Coleman's experience in bombing was invaluable for bringing the plane into the correct position for a vertical photo. On reaching the proper spot he would pull a string of which the other end was tied around my arm and all I had to do was to push the button of the camera and to change the plate immediately afterwards. The results of this uneven coöperation proved to be eventually very satisfactory.

The weather report on the morning following was to the effect that the Rashaba was still keeping everybody in Sulaimania indoors. Nevertheless,

Mr. Coleman gave the signal for the start, as he had pressing work at Hinaidi and had to get back there the same day. Our planes rose from the ground about an hour after sunrise and made straight for the hills in the east. Climbing steadily, we passed the Chemchemal Valley and then turned slightly southwards towards the Derbend-i-Basirra, as the gorge of the Tauq Chai through the Sagirma Dagħ is called. The plan was to fly parallel with the valley of Tanjero, crossing it below Arbat, in order to avoid the main force of the Rashaba. The grim walls of the gorge, contrasting strikingly with the gay, glistening streak of water through the middle of it, presented a lovely sight. It was clear that the passage-way was wholly inappropriate for an army with chariots. Nor could the gorge be conveniently barred up with a gate, as was the case with the Babite Pass. To our left was another break in the range: The Bazian Pass. There, fastened on both sides to massive walls of rock, stood the pillars of the gate that opened into the strange land to the east; a gate awe-inspiring and impressive, and appreciated by Nūr-Adad and Ashurnasirpal not less than by Sheikh Mahmud and the British strategists.

Presently we were over the Qara Dagħ Valley, narrow though inviting to the east, but increasingly inhospitable as it came nearer to the Diyala. As we flew over the Barauand range the Jaishana Caves were directly underneath. A minute later we had a full view of the valley of Tanjero. The long corridor from the Lower Zab to the Awraman Mountains lay spread out under our eyes in its full glory. The river wound along dreamily, embracing a bleak city in the crook of its arm. Mounds and villages lay peacefully side by side. Gudrun contemplated us with an unconcern that was quite natural with the undisputed master of that beautiful region. For Gudrun was no longer merely an imposing mountain. What we saw from above was a monstrous, rock-hewn eagle, its gigantic wings spread out to full length, the head bent slightly forward, as if to look down upon the wide lands over which he presided. The ancients who allowed Mount Nişir to defy the waters of the Flood showed indeed an eye for Beauty as well as a feeling for the Divine when they sang of the ark and of the place upon which it lighted.

From the air it was not difficult to understand why Shehrizor is considered the heart of the whole district. Towards the little basin sheltered by the Awraman the terrain inclines from all sides; it is a natural center of gravity. Nowhere else did we see an area that was so richly populated and so well watered.

We left the valley flying over Arbat and, after crossing the range in front of us, we continued in the direction of Barzinjah. From there we turned eastwards towards Mount Kurdiwan, following a path that winds through a

narrow gully and connects Barzinja with Kaolos. The route is not given on even the most recent maps, though it is the shortest way between Sulaimania and Penjwin. In ancient times this short cut was doubtless better appreciated, for on a peak which rises to the south of the gully are still to be seen extensive ruins of a masonry castle obviously built for the purpose of protecting the passage (Fig. 12). It was discovered a few years ago by an officer of the Royal Air Force and subsequently photographed. A tug at my arm indicated that the plane was in position for a fresh photo and I leaned down hastily in the cockpit to push the button. A short while afterwards the planes described a semicircle and headed towards Penjwin. As we flew over the long and narrow canyon north of Kaolos I was immediately reminded of the Annalist's description of the pass between the mountains Lâra and Bidirgi. The correspondence was remarkable indeed. I could almost visualize the plight of Ashurnasirpal's army when, barred from the natural passageway, it was forced to blaze a new trail through Mount Kurdiwan and return to Arakdi (Bingird) to recover from the effects of the strenuous campaign in the mountains.

On the way to Penjwin we followed the usual route across the Tankabya River. We continued on to the Qizilja River, noticing several mounds in the pretty Qizilja Valley. We had a fine view of the country around Bistan and of the formidable mountains beyond it which constitute the border between Persia and Iraq. Then we turned westwards, following for a while the course of the Qizilja. Underneath, between the two arms of the Qaracholan, rose a row of rugged mountains, covered with dwarf-oak, and separated at intervals by narrow ravines where a village would nestle, sheltered from the winds. Near one such village, Parazan, we observed a flat mound which may very well represent ancient *Parsindu*. We recrossed the Tankabya River having Kurigazhao on our left, Gudrun on our right, and a bewildering interplay of hill and valley underneath. Then we rose above the eastern wing of Gudrun and presently found ourselves back in the Sulaimania Valley. Ancient Bâra and her allies must have fought desperately before Ashurnasirpal succeeded in wresting from them these beautiful spots. Once more we were flying over a range, with Tasluja a little to the north. From here we followed the usual route by way of the Bazian Pass and in a half hour we landed in Kirkuk, having been favoured throughout our journey with perfect flying conditions in spite of adverse weather reports.

To sum up, the flight, apart from being a wonderful experience, proved very useful as well. I had a bird's-eye view of a large stretch of land, interesting and picturesque, which since the beginning of history has been the scene of many strange and stirring events. Any other method of traveling, the best

maps, and scores of descriptions, however vivid, would not have given me as clear and comprehensive an idea of the relief of the land. Moreover, much of what I had advanced as tentative theories was now raised to practical certainty. The topography of the Zaman Wars and the interesting parallel between them and the recent battles in the region of Sulaimania will now, it is hoped, scarcely require an important revision.

In concluding, I wish to express my feeling of great indebtedness to the British civil and military authorities in Iraq for their sympathetic and eminently helpful attitude towards every phase of my work in that country. Working and wandering in the wide and open spaces of Mesopotamia or amidst the bold and barren mountains of Kurdistan has been to me a source of great personal enjoyment. I know that much of that pleasure was due directly or indirectly to the men who direct the various offices in Baghdad and to officers in charge of the administrative districts afield. It is in appreciation of these kind services that I have taken the liberty to dedicate the preceding pages to the British authorities in Iraq.



Fig. 1. The Bazian Pass



Fig. 2. A section of the Qaradagh



Fig. 3. Bugged in the Bazian Pass

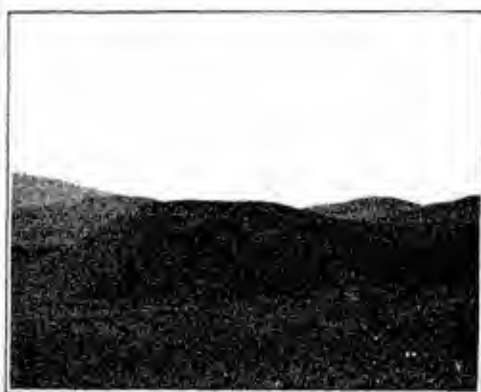
Fig. 4. Gopal Teppe, *Berutu*

Fig. 5. Taslujah



Fig. 6. Qal'at Hazar Merd



Fig. 7. The Muhun Blockhouse on the mound of Bingird, ancient *Arakdi*



Fig. 8. On Yasin Teppe



Fig. 9. A Kurd from Sulaimania

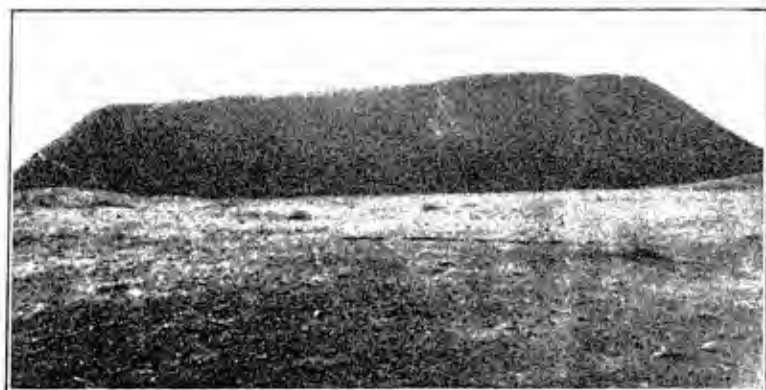


Fig. 10. Tepe Bakrawa, ancient *Dûr-Ašur*

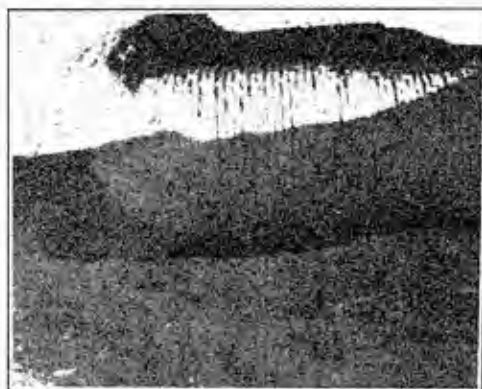


Fig. 11. A section of a well at Tepe Bakrawa

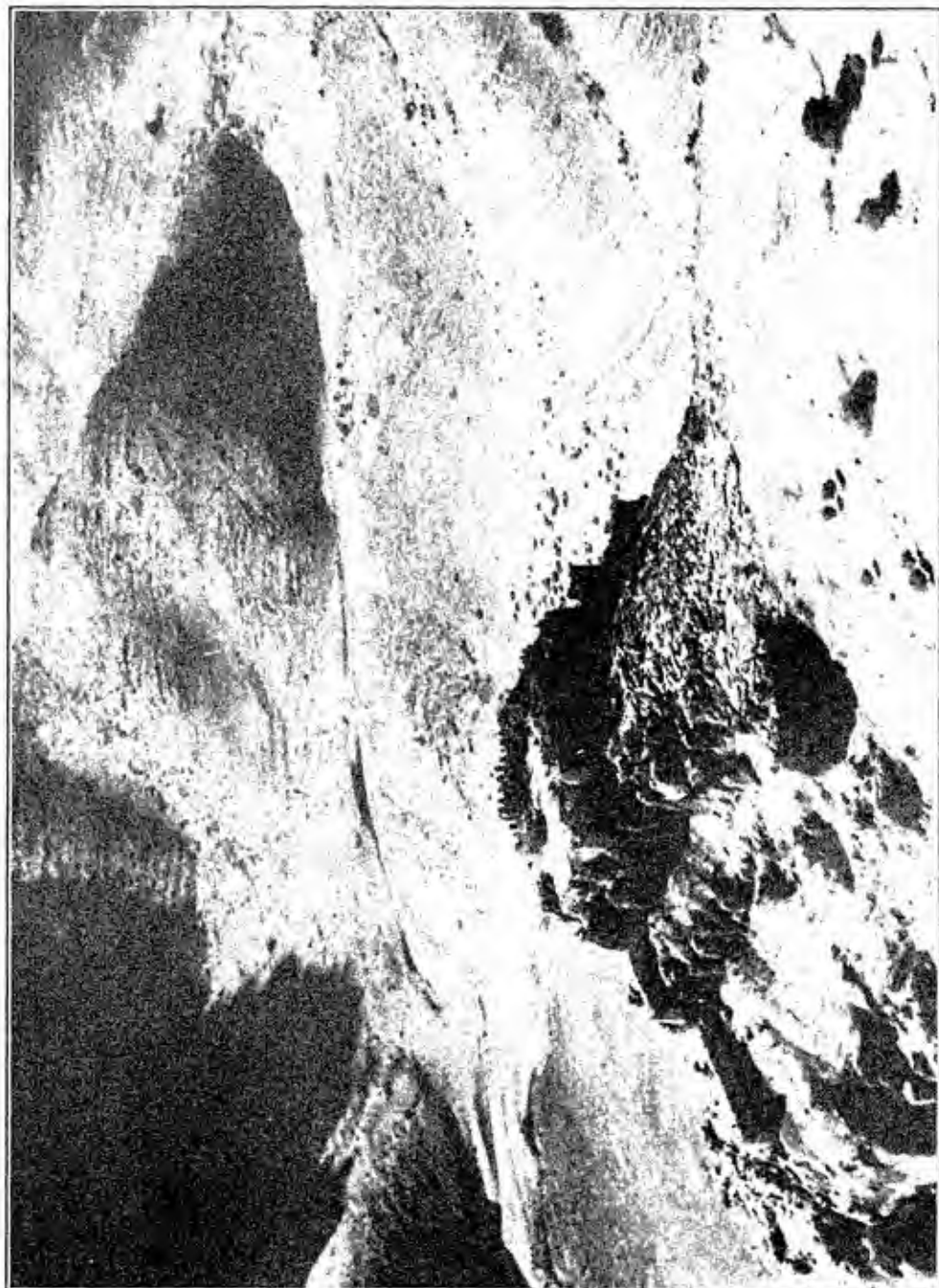
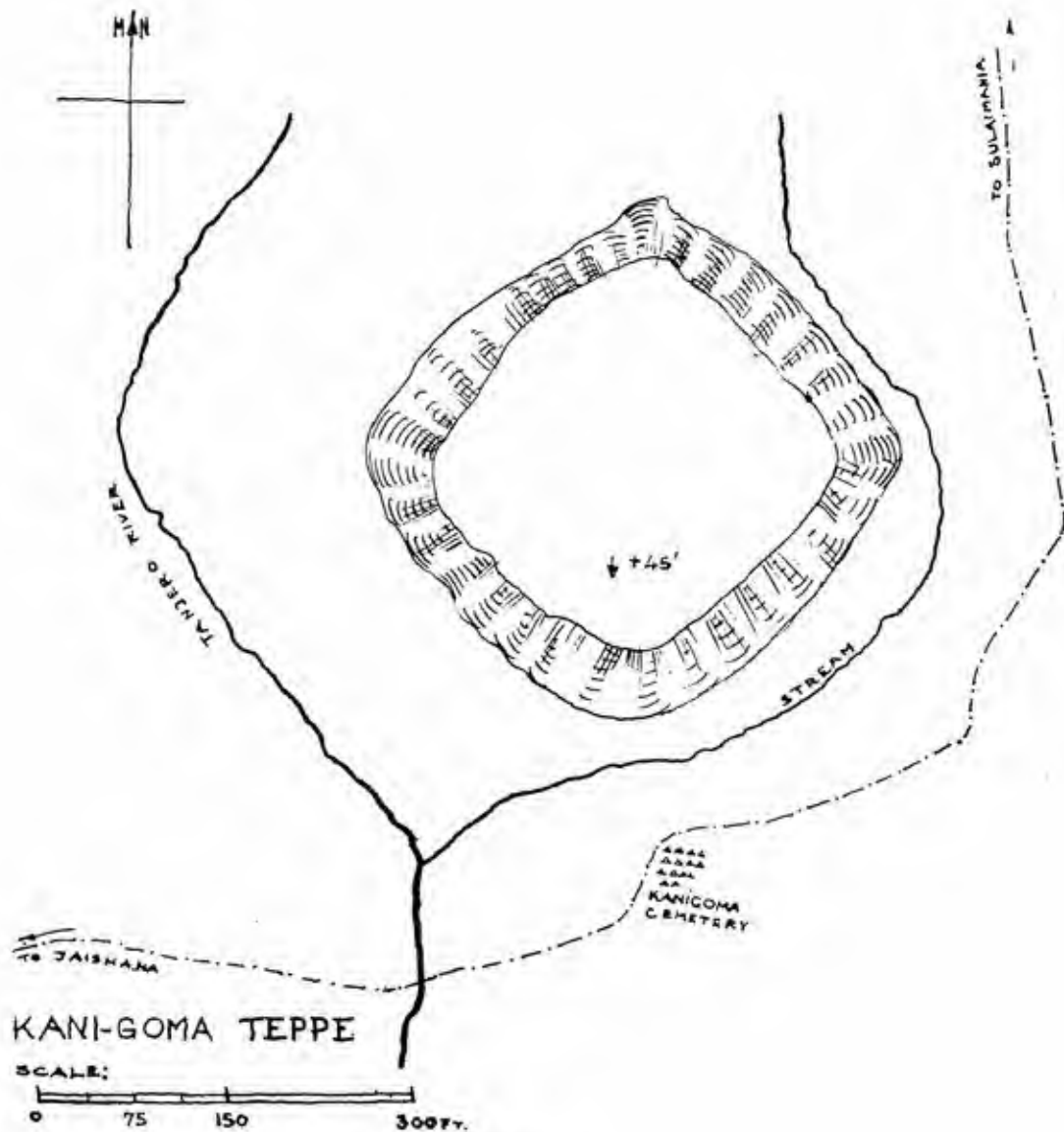
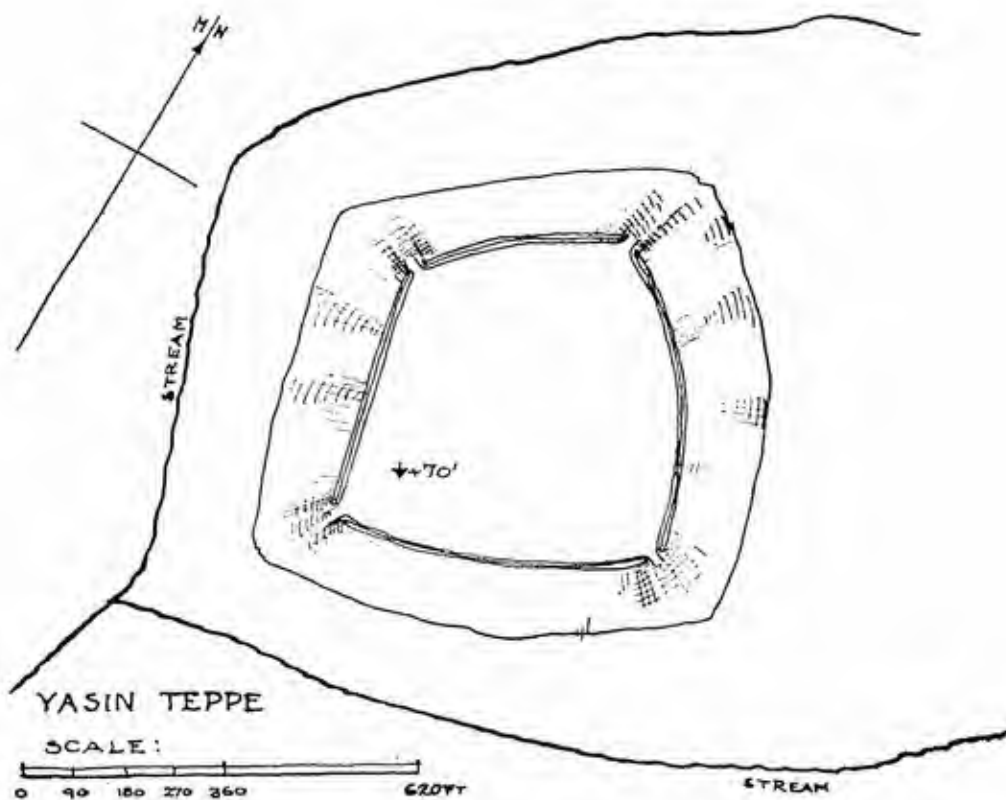


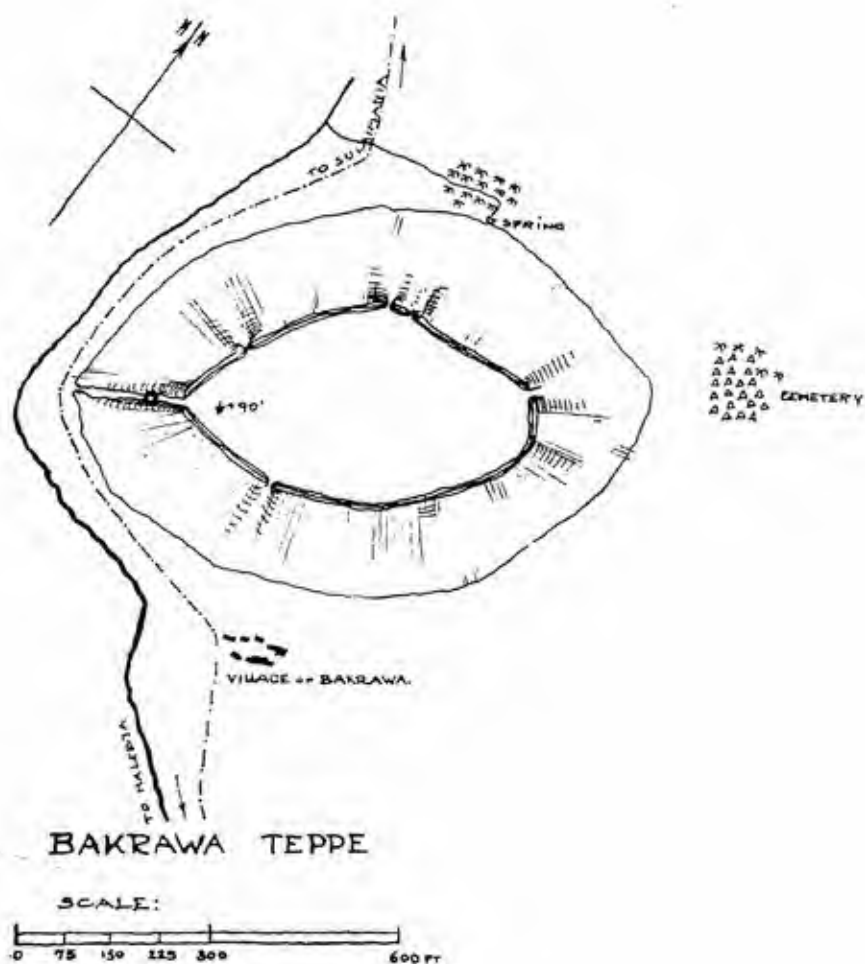
Fig. 12. Ruins south of Mt. Kurdliwan
(Copyright by the British Royal Air Force)



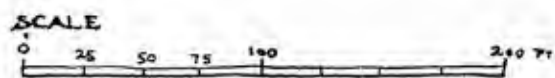
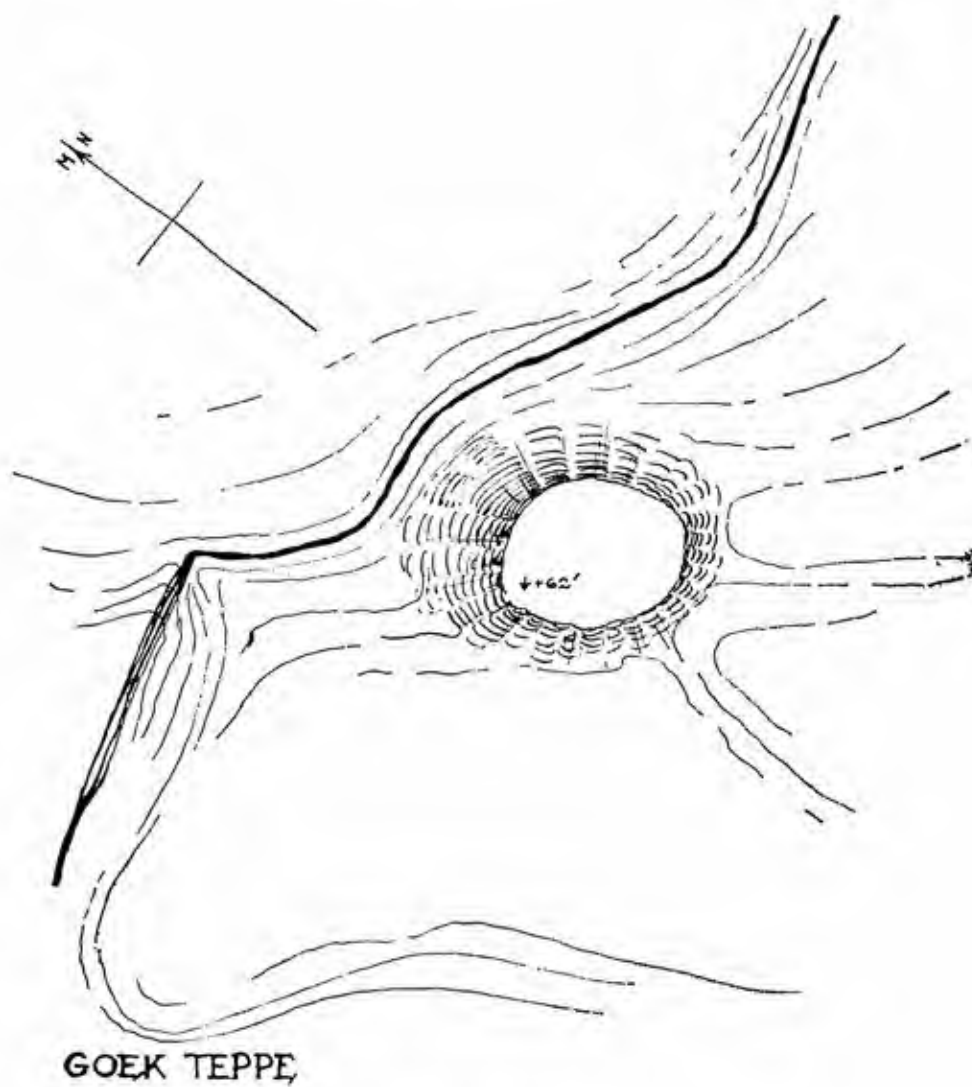
Map 1



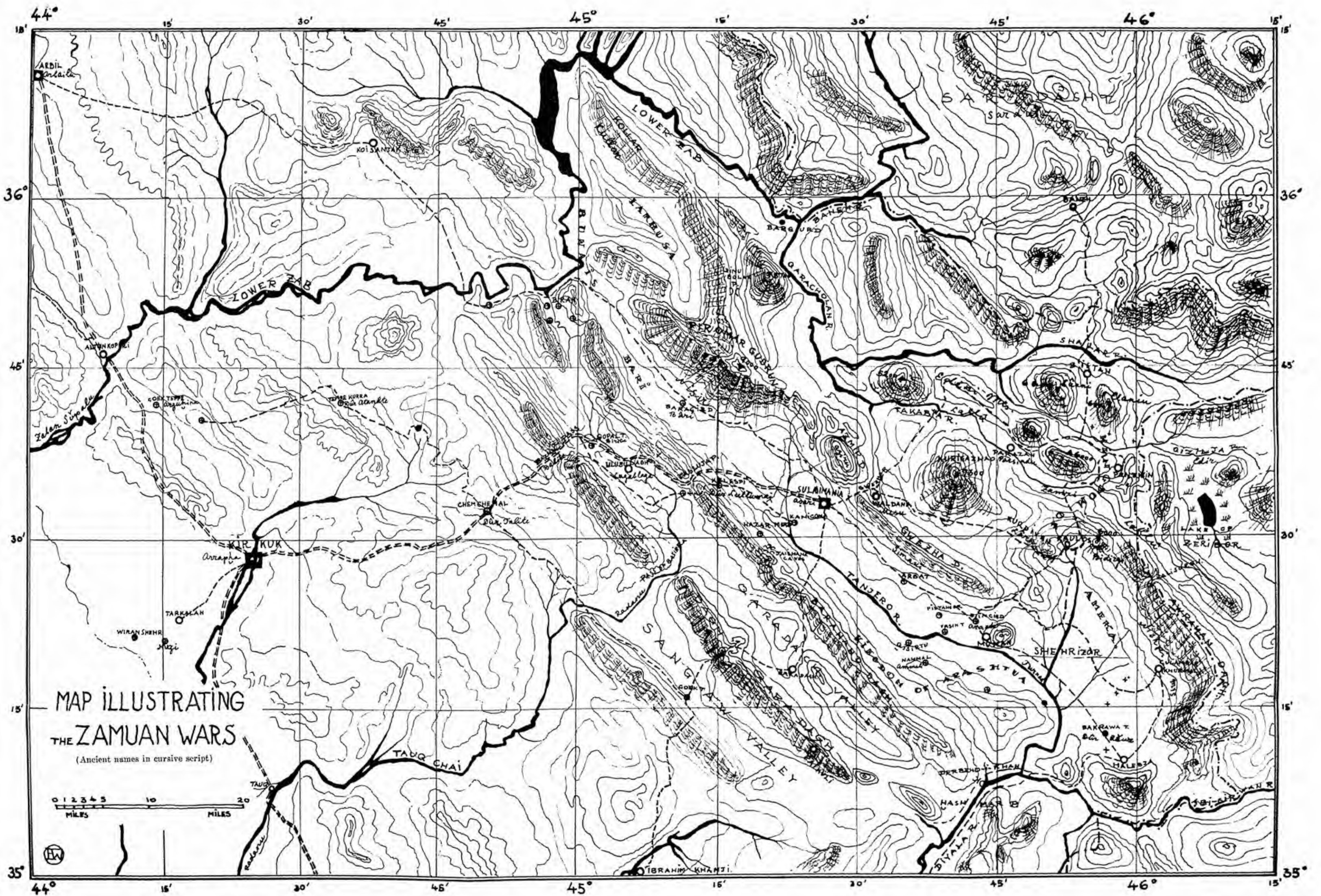
Map 2



Map 3



Map 4



MISCELLANEOUS ANTIQUITIES FROM SOUTHERN BABYLONIA

RAYMOND P. DOUGHERTY

YALE UNIVERSITY

During the writer's study of ancient remains in southern Babylonia interesting antiquities were obtained from Arabs residing in the vicinity of mounds. A discussion of these antiquities has not been included in the main report of the survey,¹ since reliable criteria for the determination of the nature of sites should be confined to things found *in situ*. However, archaeological objects of authentic character possess considerable value even if the debris from which they came is not known with definiteness. Engravings upon shell, amulets of varied type, implements of stone and clay, molded figures, etc., represent ancient art with unfailing precision. The purpose of this supplementary article is to give the readers of the ANNUAL a glimpse of the kinds of antiquities which bartering with Arabs in Lower 'Irâq yielded.

Most of the objects about to be described were secured from Arabs living in the neighborhood of Warka,² and there is strong likelihood that the majority if not all of those so obtained came from the ruins of Erech. It is conceivable, however, that Arabs searching for antiquities at Warka might include Tell Senkera in their range of activities. Hence it is impossible to place entire credence in their statements, especially when one takes account of the fact that they are liable to say what they think will enhance the value of an object in the mind of the buyer. For this reason the following paragraphs will consist of mere descriptions of what the illustrations depict. The illustrations appear on pages 50-54.

Diorite Labartu Amulet

Drawings of both sides of a black amulet of diorite are shown in Fig. 1 *a* and *b*. A hole passes lengthwise through the projection at the top of this bit of engraved stone, enabling it to be worn suspended from the neck. The amulet is an inch long, a little less than an inch wide and about one-tenth of an inch thick. The drawing marked *a* shows a Labartu figure with lithe human body and animal head. The position of arms and legs indicates action. Two signs at the left of the figure seem to be ŠÚ, 'hand,' and IGI, 'eye.'³ The signs at the right of the figure are difficult to interpret. The

¹ Cf. *The Annual of the American Schools of Oriental Research*, Vol. VII, pp. 1-93.

² All the antiquities described in this article were obtained in the vicinity of Warka with the exception of those depicted in Fig. 5 and Fig. 13.

³ See Barton, *The Origin and Development of Babylonian Writing*, Nos. 311 and 406.

drawing marked *b* shows the opposite side of the amulet with three lines of an illegible inscription. At the beginning of the top line appears what may be regarded as the ideogram for 'god.' The remaining marks, so far as can be determined, do not represent known cuneiform ideograms, and hence the writing may be adjudged as purely cabalistic. This accords with the fact that Labartu was believed to be a female demon inimical to human welfare. Amulets like the one just described were worn as a magical protection against her dreaded influence.⁴

A Piece of Engraved Shell

In a number of respects the carving depicted in Fig. 2 is unique. This naturalistic result of the artist's skill was executed upon an entirely flat piece of shell one-fifth of an inch thick. The texture of the shell is coarse-grained and its color is grayish. Deftness of engraved line and realism in effect cause regret that the whole scene has not been preserved. At the left, a lion attacks a bull. Stalks, two of which bear flowers, rise in the center, where the head and neck of another animal appear. At the right, part of the crowned head of a king remains, facing what seem to be the horns of an animal. Judged by its art this piece of engraved shell seems to belong to the Sumerian period.⁵

Archaic Carving upon Shell

A piece of slightly-curved shell of solid, fine-grained consistency and beautiful ivory color is represented by the drawing in Fig. 3. The general thickness of the shell varies from one-tenth to one-fifth of an inch. The ornamentation upon it was engraved with delicate skill by means of a fine tool. All double lines represent grooves with edges raised above the intervening plane surfaces. In the lower panel a man stands between two animals whose bodies are depicted in a vertical position upon hind legs. In the upper panel a human figure appears with an arm lifted as if in worship or prayer. That there was a third panel is indicated by a few vestiges of carving. The general appearance of the figures suggests that a Sumerian artist produced this fine specimen of engraving.⁶

⁴ See discussion and references in Meissner, *Babylonien und Assyrien*, 2, pp. 222-225. Cf. Koldewey, *The Excavations at Babylon*, p. 269; Nies and Keiser, *Historical, Religious, and Economic Texts and Antiquities*, p. 18 f.

⁵ Cf. King, *History of Sumer and Akkad*, pp. 78-83.

⁶ Cf. reference in note 5.

Portion of an Inscribed Alabaster Vase

In Fig. 4 appears the outline of a piece of alabaster which was part of a jar or vase. A little section of the polished rim remains at the top of the fragment. The last part of a Sumerian votive inscription, *a-mu-ru*, 'he presented,' has been preserved. The unusual form of the middle sign should be noted.⁷

Unusual Stone Object

The purpose of the marble or limestone object depicted in Fig. 5 is unknown. It was obtained from Arabs in the vicinity of Ishân Hâfudh, where the Ur-Ninurta bricks were found. Ishân Hâfudh is about ten miles southeast of Tell Nuffâr. The stone object in question is cylindrical, tapering towards both ends. Its length is three and one-half inches and the largest diameter is one and one-fourth inches. Half an inch from one end at a point where the object is three-fourths of an inch in diameter it is perforated by a hole which averages one-fourth of an inch in diameter with the smallest diameter half-way through the perforation. The hole is too near the indentation at the small end of the object for the combination to be regarded as the mouth and eyes of an animal, unless grotesqueness of design is granted. Furthermore, complete perforation of a sculptured object is not the usual means for representing eyes. This uncommon antiquity may have been used as a weight or plummet. Fastened to a handle it would have been a very effective weapon, but the friable nature of the stone is against this supposition. The peculiar shape at the heavy end indicates that it could not have been a pestle for a mortar. It may have been a ceremonial object used in some religious rite.

Decorated Ivory Implement

A roughly-fashioned, light yellow ivory object of peculiar shape is shown in Fig. 6. The side seen in the picture is partially rounded, whereas the other side is almost flat. Its length is three inches, its extreme thickness is one-fifth of an inch, and its extreme width is three-fifths of an inch. The lines in the photograph indicate slight grooves tinted with some coloring material. The three parallel lines near the forked end represent a dark line between two pinkish lines. The same is true of the three lines near the middle. Here there is an additional short groove colored pink. The last

⁷ See Barton, *op. cit.*, No. 62. Cf. Clay, *Miscellaneous Inscriptions in the Yale Babylonian Collection*, Text No. 1, line 3.

line at the narrow end of the object represents a groove of similar hue. The remaining grooves are dark in color. It may be that these colors were originally black and red. They are still fairly vivid. The object may have served as an ornament or as an implement used by a weaver in separating one thread from another.

Carved Ivory Handle

A slender ivory handle three and seven-tenths inches long with an extreme diameter of one-fourth of an inch is shown in Fig. 7. It is decorated with circular grooves as shown in the picture. The brown color of the object appears to have been caused by the application of some kind of stain. That it belonged to an implement which was held in the hand can hardly be doubted. There are indications of a break at the thick end. One wonders whether it may not have been the handle of a Babylonian stylus.⁸

Stone Implement

The material of the symmetrically-made and excellently-polished object shown in Fig. 8 is jade. It is a chisel-like implement with a vertical length of slightly over an inch and a half. The length of the perfectly straight edge at the bottom is the same. The greatest thickness is half an inch. There are no provisions for attaching a handle to it. It may have served as a cutting tool by being struck with a small mallet. The edge of the implement is not nicked to a considerable degree. De Morgan in *La Préhistoire Orientale*, Tome III, pp. 68 f, presents pictures of this type of stone instrument.⁹

Small Stone Jar

The small jar or vase depicted in Fig. 9 was carved from marble. It is one and four-fifths inches high with a flat base almost three-fifths of an inch in diameter. The greatest outside circumference is two and three-sevenths inches. The interior cavity is one and one-fifth inches deep with a diameter of three-tenths of an inch at the top. It is decorated with four indentations two of which are shown in the picture. Whether it was used as a cosmetic-container or tear-bottle is difficult to determine.

Stone Spindle Whorl

The object represented in Fig. 10 is a spindle whorl of gray limestone two and two-fifths inches in diameter. The decorated side shown in the picture is slightly convex. The undecorated opposite side is entirely flat. The thick-

⁸ See Langdon, *Excavations at Kish*, 1, pp. 95-98.

⁹ See Jordan, *Uruk-Warka*, WVD OG, No. 51, p. 69; Tafel 97 k.

ness of the center of the whorl is half an inch. Of special interest is the crudely-incised design, as it represents an eight-pointed star.⁹ Each line bordering a segment passes beyond the edge of the star. An extra line within each segment reaches from the hole in the center to each star tip, thus producing an attractive geometrical arrangement.

Clay Spindle Whorl

The spindle whorl of fired clay, Fig. 11, is also two and two-fifths inches in diameter. The side shown in the picture is very convex, and the opposite side, which is undecorated, is correspondingly concave, the general thickness being about three-tenths of an inch. The object has the appearance of having been cast in a mold. A design similar to that shown in Fig. 10 characterizes the decoration. An eight-pointed, rosette-like star, with an extra line within each segment, adorns the surface. The openings between the segments are decorated with short lines. At the center is a circle formed by a row of slightly-raised knobs.

Symmetrical Diorite Objects

The objects shown in Figs. 12 and 13 may have been worn as amulets or as mere ornaments. The former comes from the vicinity of Warka. It is shaped like a cross and is decorated with slightly diagonal grooves. The latter comes from the vicinity of Fâra. It is more elongated and has a more complicated system of grooved lines. Only the sides of the objects appearing in the pictures are decorated. The reverse sides are entirely unengraved. Both objects are perforated parallel to the sides, the one shown in Fig. 12 with the shortest possible diagonal bore, the one shown in Fig. 13 with a long bore from one end to the other. The illustrations show the natural size of the objects.

Fragment of a Stone Utensil

The object depicted in Fig. 14 appears to be part of a very shallow bowl or platter of grayish basalt. The decorated portion shown in the picture is the vessel's bottom which is bordered by a slight, well-rounded ridge. A section of the undecorated side appears at the top of the picture. A thickness of half an inch in the base dwindles gradually to three-tenths of an inch at the rim. The lotus-flower *motif* is very evident in the ornamentation produced by the artist's chisel and hence Egyptian influence is indicated.¹⁰

⁹ The eight-pointed star was the symbol of Ishtar, the goddess whose worship was prominent at Erech. See Ward, *Seal Cylinders of Western Asia*, p. 395.

¹⁰ The writer obtained an Egyptian scarab from Arabs at Warka.

The inside of the utensil is perfectly plain with a very smooth surface. An inner depth of only two-fifths of an inch suggests that the original vessel was probably a large dish or platter. The diameter of the utensil was about 11 inches.

Part of a Clay Handle

A portion of a handle of fired clay is shown in Fig. 15. It cannot be regarded as representing finished workmanship or careful design, although the firing has been exceedingly well done. The crudely-incised lines indicate an attempt at decoration executed very hastily with no evident purpose beyond that of making the object a little more attractive in appearance. Whether it was the handle of an ordinary implement or the hilt of a weapon cannot be determined.

Decorated Clay Stand

A good view of a stand of fired clay with a diameter of three and one half inches is presented in Fig. 16. It consists of a circular layer of clay two-fifths of an inch thick originally supported by three short legs, two of which are shown in the picture. A break indicates where the third one protruded. The adornment on the upper surface is interesting. In the center is a slightly-raised knob surrounded by three concentric circles, the outer one of which is at the edge of the object. There seems to be some evidence of notching between the two inner circles. In the much larger space between the two outer circles four symmetrically-arranged palm branches form the main part of the decoration. Between them are elongated elevations which may have been meant as representations of animals, although it is difficult to determine this with definiteness from the uncertain contours which remain. The stand was evidently used for holding some valuable object, possibly a votive image in a private home or a ceremonial vessel in the temple.¹¹

A Lion's Head in Clay

An effective representation of a lion's head in thoroughly-fired clay is shown in Fig. 17 *a* and *b*. There was no endeavor to model the whole figure of a lion. The head and part of the neck are shown attached to a small mass of burnt clay. It may be that it belonged to a brick or tile used in decorating a wall or ledge. Another possibility is that it formed part of a clay piece of furniture. While its original use remains more or less unknown, the realism attained by the ancient artist cannot fail to inspire admiration. The front view, Fig. 17 *b*, is even more naturalistic than the side view, Fig. 17 *a*.

¹¹ The writer observed a similar clay stand in the Musées des Antiquités de Stamboul.

Types of Ancient Clay Lamps

Pictures of three ancient lamps are presented in Fig. 18 *a-c*. The difference in size and shape is worthy of note. Lamps *a* and *b* must be classed together due to flaring lip around the main opening, a more easily grasped handle, and evidence that the surface of the interior was protected with a greenish glaze. Both have a flat bottom an inch and a half in diameter, which means that *a* has a proportionately smaller base. Portions of a thick lime-colored slip remain on *b*, while a thinner slip of darker shade clings to most of the surface of *a*. Lamp *c* is much smaller with the bare suggestion of a handle and hardly any lip. Its interior furnishes no sign of green glazing. It is covered with a heavy, whitish slip which is almost intact. A more pointed tip for the wick-holder distinguishes *c* from *a* and *b*. These lamps are at least as old as the Parthian period.¹²

¹² For a discussion of Mesopotamian lamps of different periods see Koldewey, *op. cit.*, p. 252-254. Cf. Banks, *Bismya*, p. 270 f. Cp. Jordan, *Uruk-Warka*, WYDOG, No. 51, p. 63; Tafel 84 f, g.

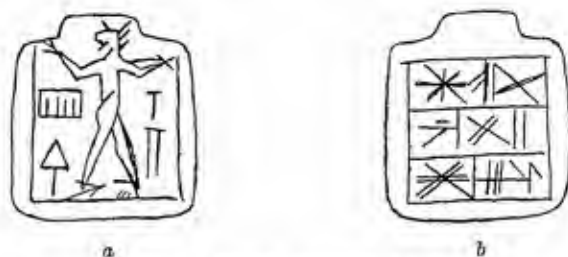


Fig. 1. Diorite Labartu Amulet.



Fig. 2. A Piece of Engraved Shell



Fig. 3. Archaic Carving upon Shell

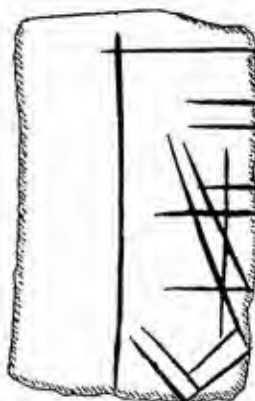


Fig. 4. Portion of an Inscribed Alabaster Vessel



Fig. 5. Unusual Stone Object



Fig. 6. Decorated Ivory Implement



Fig. 7. Carved Ivory Handle



Fig. 8. Stone Implement



Fig. 9. Small Stone Jar



Fig. 10. Stone Spindle Whorl



Fig. 11. Clay Spindle Whorl



Fig. 12. Symmetrical Diorite Object



Fig. 13. Diorite Object marked with Geometric Grooves



Fig. 14. Fragment of a Stone Utensil



Fig. 15. Part of a Clay Handle



Fig. 16. Decorated Clay Stand



a



b

Fig. 17. A Lion's Head in Clay. Three-fourths Natural Size.



a



b



c

Fig. 18. Types of Ancient Clay Lamps. Three-fourths Natural Size.

THE AMERICAN PALESTINE EXPLORATION SOCIETY

WARREN J. MOULTON

That there was once an American Palestine Exploration Society, that it had a most auspicious beginning and every prospect of vying for honors in the field of scientific research with its sister organization, the Palestine Exploration Fund of England, that its executive board at home included some of America's leading Biblical scholars and laymen, that it enlisted the support of churches and Sunday Schools, together with many patrons, that it sent to the field two well-equipped scientific expeditions as well as individual investigators, has been well nigh forgotten in this country. So much is this the case that one of the surviving members of the committee of whom inquiry was made, apparently had no memory that such an organization had ever existed. Allusions to the American Society are now confined, for the most part, to briefest paragraphs in historical summaries. Those who were fully informed as to its history are no longer living, and the records of its proceedings, thus far recovered, are exceedingly meagre. The most important sources of information are the Statements issued at irregular intervals from 1871 to 1877 (July, 1871, September, 1873, January, 1875, and June, 1877), together with a few brief bulletins.

In reviewing the history of the Society it is interesting to discover that those who had been its active supporters led the way in founding the later American Schools of Oriental Research. No doubt it would be true to say that the more recent organizations are a continuation of the earlier movement. Only eight years intervened between the death of Dr. Hitchcock, President of the Exploration Society, and the formulation of plans for the Jerusalem School. Dr. J. Henry Thayer, whose presidential address before the Society of Biblical Literature and Exegesis on June 13, 1895, resulted in active measures for organizing this School, had been a generous contributor and promoter of the American Palestine Exploration Society. The same was true of Dr. William Hayes Ward, who was associated with Dr. Thayer in the new movement and who bequeathed his valuable Oriental library to the American School in Bagdad.

We are told that the American Palestine Exploration Society had its beginning in a large and influential meeting held some time during the month of October, 1870, in the Madison Square Church of New York City. This gathering was convened to hear two English gentlemen, Rev. Henry Allon and Rev. James Mulleus, D. D. of London, who brought an account of the

work and plans of the Palestine Exploration Fund of England, which had been established five years previously. After paying tribute to the distinguished service already rendered by Americans in the exploration of Palestine, they invited further coöperation "in the scientific and catholic measures of the English society." Their visit was due doubtless in large measure to the desire to enlist American support for the survey of Western Palestine, which project was then creating lively interest in England.

At first it was suggested that a new association be organized in the United States, and that it take the form of a branch of the older English Society. But upon further consideration, it was deemed best to found an entirely independent organization. The suggestion was so well received that a committee of thirty was appointed, with power to add to its number, to engage "in the further exploration of Palestine by such measures as shall promise the best practical results." The committee was made up of the following members:

Rev. JOS. P. THOMPSON, D. D., LL. D., *Chairman*
 Chancellor HOWARD CROSBY, D. D., *Secretary*
 JAMES STOKES, JR., Esq., *Treasurer*
 Prof. R. D. HITCHCOCK, D. D., New York
 Prof. H. B. SMITH, D. D., New York
 Rev. JOHN COTTON SMITH, D. D., New York
 Rev. E. A. WASHBURN, D. D., New York
 Rev. J. H. VINCENT, D. D., New York
 W. H. THOMSON, M. D., New York
 Hon. SMITH ELY, JR., New York
 HOWARD POTTER, Esq., New York
 W. C. PRIME, Esq., New York
 A. O. VAN LENNEP, Esq., New York
 WILLIAM A. BOOTH, Esq., New York
 D. WILLIS JAMES, Esq., New York
 Rev. W. I. BUDINGTON, D. D., Brooklyn, N. Y.
 FISHER HOWE, Esq., Brooklyn, N. Y.
 Prof. A. C. KENDRICK, D. D., Rochester, N. Y.
 Prof. H. B. HACKETT, D. D., Rochester, N. Y.
 Prof. JAMES STRONG, D. D., Madison, N. J.
 Prof. G. E. DAY, D. D., New Haven, Conn.
 Rev. W. L. GAGE, Hartford, Conn.
 WM. FAXON, Esq., Hartford, Conn.
 Prof. E. A. PARK, D. D., Andover, Mass.
 Prof. W. S. TYLER, D. D., Amherst, Mass.
 Rev. PHILLIPS BROOKS, D. D., Boston, Mass.
 Rev. DANIEL MARCH, D. D., Philadelphia, Penn.

Rev. RICHARD NEWTON, D. D., Philadelphia, Penn.

Rev. W. W. PATTON, D. D., Chicago, Ill.

Rev. D. STUART DODGE, Beirut, Syria

That the American Society came into being with so much promptitude and enthusiasm was due, before all else, to the desire to perpetuate the brilliant work of Dr. Edward Robinson, who visited Palestine in 1838 and again in 1852, and whose *Biblical Researches*, published simultaneously in Boston and London, and likewise in German in Halle, won for him world-wide recognition as the first scientific investigator of the Holy Land. For twenty-five years, down to the organization of the Palestine Exploration Fund, he continued to be the outstanding authority in the field of Palestine's physical and historical geography. It was but natural that Dr. Thompson, Chairman of the new American Society, in his first appeal should turn back to Robinson and other American investigators and should say that he was endeavoring to recall the people of the United States "to their duty in a field where their own countrymen were pioneers, and where American scholarship and enterprise have won such distinguished merit." So, likewise, one of the early messages of Dr. Roswell D. Hitchcock, who succeeded Dr. Thompson as President, emphasizes the same thought: "Arguments can hardly be needed to set forth the importance of the work we have undertaken. It concerns equally the interests of science and the interests of religion. If successful, as we expect to be, many branches of human knowledge will be our debtors, and five years from now the Society will have friends enough."

"It is hardly too much to say that our national reputation is at stake. What we have done in former years for geography, and especially for the geography of Palestine, compels us now to do more. Robinson, Smith, Lynch, Thompson and Barclay have put us under bonds to do our best. The laurels they have won for us must not be lost." So spoke Dr. Hitchcock, who was the friend and biographer of Robinson, and who was the outstanding leader of the Society from 1871 up to the time of his death in 1887.

The news of America's response to the overtures of the Palestine Exploration Fund was warmly welcomed in England, and straightway during the next month, the following cordial message was received from the Archbishop of York:

Sir—The Committee of this Society have heard with great satisfaction that a fund is being formed in New York for the purposes of systematic Palestine Exploration. At the request of the Committee, whose President I am, of this, the English Fund, I desire to express our cordial wishes that the two societies may heartily co-operate in this important work. It is with the greatest pleasure that we anticipate the working, side by side, of our two nations, to whom the Bible is

especially dear, and to whom its words are familiar from the same translation. Our aim is nothing less than the collection and diffusion of every particle of information from the Lands of the Bible, yet remaining to be secured, which can throw light on the pages of the Sacred Book.

We are ourselves a body of men who hold widely different views on religious matters; but we are united by one bond of attachment to the Scriptures. I venture to express the hope that they will be also the great bond of union among the members of your Committee.

And with the prayer that our common efforts may lead to a wider knowledge of the Bible, and a deeper reverence for it, I remain, sir,

Most truly yours,

W. EBOR,

President of the Palestine Exploration Fund.

Since the English Society was already committed to the survey west of the Jordan, it was agreed, after an interchange of views, that the United States should assume a like responsibility for the district east of the Jordan. The Palestine Exploration Fund, in its appeal issued in June, 1871, has this to say on the subject:

The survey of Palestine divides itself naturally into two parts, the east and the west of the Jordan. It is with pleasure that the Committee are able to announce that the Americans have established an independent association, and that an agreement has been effected by which they will take the east while the English Society takes the west of the Jordan. The English will start in the autumn.

President Hitchcock, in making a similar announcement in a special pamphlet, adds, "At no time since the Crusades has the country been so laid open as now. It is a golden opportunity, and we are prepared at length to improve it."

FIRST EXPEDITION

The First Statement of the American Society appeared in July, 1871. In form it closely resembled the Quarterly Statement of the Palestine Exploration Fund and had the same cover design. Dr. Thompson, who at that time was still Chairman, in asking for financial support, quotes with seeming approval the views of Rev. William Thomson, D. D. of Beirut, the author of "The Land and the Book," as to the scope of the work that should be undertaken. "Let the proposed field of exploration include the whole territory east of the Dead Sea and the Jordan valley. Also Hermon, the Lebanon, and the valleys and plains of Northern Syria."

"It would be best, I think, that the Expedition should begin operations

at the south end of the land—say in January and February—and work up northward during the months of March, April, May, and June.” The aims and objects are then summarized as follows:

1. GEOGRAPHICAL and TOPOGRAPHICAL, of course, and with special reference to Biblical history.

2. ARCHAEOLOGICAL and ARCHITECTURAL. The careful exploration and description of ruins, castles, temples, tombs, mounds, copying inscriptions, etc. in all languages.

3. ETHNOLOGICAL; especially a careful account of the various races and tribes, Christian, Moslem, Jewish, Druze, Kurds, and Bedouin; with their relations to the ancient inhabitants as far as it can be ascertained.

4. MANNERS, CUSTOMS, LAWS, ETC., social, domestic, civil, and religious; also the employments of the people, their agricultural, pastoral, and domestic implements, etc., etc.

5. GEOLOGY, MINERALOGY, BOTANY, AND NATURAL HISTORY present large and deeply interesting fields for scientific investigation in all the regions contemplated in the Expedition.

6. MAPS AND CHARTS, DRAWINGS, and PHOTOGRAPHICAL VIEWS. A noble field for valuable scientific work.

There should be a sufficient number of scientific experts connected with the Expedition to secure accurate results in all the departments, and the duties of each should be clearly defined.¹

The hope that an expedition might go forth in the autumn of 1871 was not realized. A letter sent to the Secretary of the English Society explains the reason for the delay:

¹ The First Statement of the American Society was made up of the following articles:

“American Explorers in Palestine”

“The English Palestine Exploration Fund”

“The Palestine Exploration Society”

By the Chairman

“Recent Explorations in Jerusalem”, By Rev. W. I. Budington, D. D.

“The Moabite Stone”, By Rev. Howard Crosby, D. D.

“Proposed Exploration of the Countries on the East Side of the Jordan”,

By W. H. Thomson, M. D.

“Inscriptions Discovered at Hamath in Northern Syria”,

By J. Augustus Johnson

and a Concluding Appeal by the Chairman.

University, New York, November 15, 1871.

Dear Sir,—I have the honour to inform you that the Rev. Dr. J. P. Thompson having, by reason of ill-health, resigned the chairmanship of the American Palestine Exploration Committee, the Rev. R. D. Hitchcock, D. D., has been elected to fill his place. The fearful devastation of the fire of Chicago has so drawn upon the sympathy and benevolence of all, that our special work is retarded. We shall, however, make the effort to start our expedition this coming winter. I have the honour to remain,

Yours with respect,

HOWARD CROSBY,
Secretary.

Elsewhere we learn that progress was retarded not alone by the lack of funds, but also by the difficulty of finding a competent leader. Here the Americans were at a great disadvantage as compared with their friends in England. Months were spent in the search for a properly qualified engineer. The records of the War Department at Washington show that early in May, 1872, an application was made for the detail of an officer to accompany the proposed expedition. The answer came back that, while the Department sympathized with the project in view, it was not possible to meet the wish of the Society because of the small number of officers on the rolls. However, negotiations were continued and the Department finally consented to grant the desired leave of absence to a suitable officer if one could be found whose services could be spared and who cared to go. It was left to the Society to present the name of a proper candidate. On September 13, 1872, Second Lieut. Edgar Z. Steever, Jr., 3rd U. S. Cavalry, a recent graduate of West Point and serving at the time with Cavalry in Nebraska, was nominated; and on the 23rd of the same month he received leave of absence for one year. Prof. John A. Paine, who previously had been for a time connected with Robert College in Constantinople, was chosen Archaeologist and Naturalist. Arrangements were so far advanced early in November of the same year (1872) that it was possible for these two gentlemen to sail for England en route to Palestine.

Some of the necessary instruments for the survey were lent by the Government, but most of the equipment was purchased by the Society. Two weeks were spent in London completing the outfit and in becoming familiar with the work already done west of the Jordan by the English party. The officers of the Palestine Exploration Fund heartily welcomed the visitors and gave them all possible assistance in their plans. It was decided that Prof. Paine should go on in advance by the way of Paris, Marseilles, and Alexandria, in order to secure books that were not available in England, while Lieut. Steever

should sail directly from England. This he did, and on January 3, 1873, he landed at Beirut with twenty-eight cases of equipment and personal belongings.

While Lieut. Steever was busied with the organization of the expedition and with the testing of his instruments, Prof. Paine discovered some Greek inscriptions of interest in the famous pass of Dog River, near Beirut. During this same interval, through the enterprise of Lieut. Steever and Prof. Paine, it became possible to secure excellent casts and squeezes of the famous Hamath Inscriptions that were just then passing through Beirut on their way to Constantinople. These Inscriptions had been discovered and described three years previously by J. Augustus Johnson, Esq., American Consul-General in Syria, and Rev. Samuel Jessup, mentioned below. One set of these casts can still be seen in the Biblical Museum of Union Theological Seminary, New York City, and another is in possession of the American Schools of Oriental Research. During the long period of waiting in Beirut, Lieut. Steever and Prof. Paine were in close touch with an unusually able Advisory Committee that had been appointed to coöperate with the Society at home. It was made up of the following gentlemen who, through long residence, had become intimately acquainted with the country, its language and people and who, at the same time, were profoundly interested in the work of the Society:

Rev. WILLIAM M. THOMSON, D. D., *Chairman*
Rev. HENRY H. JESSUP, D. D., *Secretary*
Prof. GEORGE E. POST, M. D., *Treasurer*
Prof. C. V. A. VAN DYCK, D. D.
Pres. DANIEL BLISS, D. D., of the Syrian Protestant College
Rev. JAMES DENNIS
Rev. SAMUEL JESSUP
R. BEARDSLEY, U. S. Consul-General, Cairo, Egypt

The discouraging delay in Beirut was due largely to the tardy response of the home constituency in supplying the necessary funds. Finally, in response to the frequent and urgent appeals of Lieut. Steever, the Society's Committee made themselves personally responsible for an additional \$4,000, and thus the way was opened up for an advance into Moab. The Expedition set forth on the afternoon of March 21, 1873. As finally completed, it consisted of the following members:

EDGAR Z. STEEVER, JR., A. M., Second Lieutenant U. S. Army, Chief Engineer and Surveyor and Commander.
Rev. JOHN A. PAINE, New York City, Archaeologist and Naturalist.
Rev. ALANSON A. HAINES, Hamburg, N. J., First Assistant Engineer.

WM. G. BALLANTINE, A. B., Indiana, Second Assistant Engineer.

GEORGE SUBBET, native of Damascus, a student of the Protestant Syrian College, of Beirut, Interpreter.

BISHARA ABOU SHAFATEER, native of Beirut, a graduate of the Protestant Syrian College, collector in the Department of Natural History.

MELVILLE B. WARD, Maine, First General Assistant.

It required a full week to reach the scene of action. The route from Beirut was south to Acre, thence to Nazareth, Jenin, Nablus and over the Jordan to es-Salt. Approximately five months were spent in Moab. A base line four miles long was measured not far from Heshbon. Nearly five hundred square miles of country were triangulated. The results of the work were embodied in a field map, a copy of which was included in the Third Statement. At the close of the season, Lient. Steever returned to America, and for some reason his relationship with the Society did not continue long thereafter, notwithstanding the fact that on May 29, 1873, his leave of absence had been extended for one year at the request of N. C. White, the Society's Acting Secretary.

So far as can be ascertained, his full report was never published. This was possibly due to the dissatisfaction of the home Committee with the results of the Expedition. The meagre outcome was certainly greatly to be deplored, for the conditions east of the Jordan at that time were unusually favorable. The country was peaceful; the natives friendly; and the heat more tolerable than was anticipated. The members of the party were free at all times to ride forth whithersoever they would, without fear of molestation. Had well trained and experienced workers, like those employed west of the Jordan, been available, the history of the American Society might have had a different outcome. This, at least, was the opinion of one of the members of the Expedition.

The second Statement of the Palestine Society was published in September, 1873. The Committee's report entitled, "Our First Year in the Field", included Lient. Steever's despatches and a daily report of the progress of the party up to its arrival at es-Salt on March 29th. It was said that a continuation of the report might be expected in the next issue of the Statement, a promise that was not fulfilled.²

² Three articles, appearing in this number, were as follows:

"Discoveries at Nahr-el-keib", By H. C. (Howard Crosby).

"The Hamath Inscriptions", By William Hayes Ward, D. D.

"Husn Sulayman", By Rev. Samuel Jessup.

So far as can be discovered, the year 1874 was taken up with plans for a new expedition. On March 1st, a short bulletin was published, recounting the work already done and preparing the way for a new endeavor. The Third Statement, bearing the date of January, 1875, is devoted to two articles by Prof. Paine. The longer one (pp. 3-90) treats of the identification of Mount Pisgah, and the shorter (pp. 93-140) gives "A List of Plants Collected Between the Two Zarquas, Eastern Palestine, in the Spring of 1873," together with an index of Arabic names. A brief introductory note to this issue contains the following paragraph:

The severe financial pressure has considerably crippled our work. Nevertheless it has not been entirely suspended, and we expect soon to publish the account of further explorations in the region of Gilead which have been very rich in archaeological results.

When and by whom the explorations in question were carried on we are not told. Possibly by Prof. Paine, after the departure of Lieut. Steever.

SECOND EXPEDITION

The first step in organizing a second expedition was, apparently, the appointment of Rev. Selah Merrill, D. D. of Andover, Mass. as Archaeologist on October 20, 1874. Dr. Merrill had already travelled extensively in the Near East and was much interested in the tasks of the Society. A third bulletin, dated April 15, 1875, announces the selection of Col. James C. Lane as the leader of the party, and asks for support to the extent of \$15,000 a year for two years. It is further stated that the officers of the Society have decided that they will not pledge their personal credit to raise the necessary funds, as was done on the former occasion.

In addition to Col. Lane and Dr. Merrill, Rudolph Meyer of Hamburg, Germany, was engaged as First Assistant Engineer and J. Harvey Treat as General Assistant. Dr. Merrill sailed from New York on June 19, 1875, and landed in Beirut on the 9th of August. He found the city in the throes of a severe plague of cholera. Houses and shops were closed, and thousands of the inhabitants had fled. Through the kind offices of Dr. George E. Post of the Advisory Committee, the party obtained temporary quarters at the Syrian Protestant College until arrangements could be made for them to go into the mountains, which was done on August 25th.

Throughout the period spent in Beirut and vicinity, various conferences were held with the Advisory Committee, and the following additions were made to the personnel of the expedition:

Prof. E. R. LEWIS, of the Syrian Protestant College, Botanist
Mr. HENRY L. VAN DYCK
Mr. T. R. DUMAS, of Beirut, Photographer

and two assistants and interpreters from the College. It would seem that a decision was reached to make the new expedition one of reconnoissance, in order that the engineers might have an opportunity to become thoroughly acquainted with the whole territory apportioned to the Society, and decide as to the best method of survey. There may have been, likewise, a desire on the part of the Advisory Committee to gather material to the fullest possible extent for the illustration and elucidation of the Bible.

The party set forth on September 2, 1875, and followed a line of march that had been suggested by Dr. William M. Thomson, of the Beirut Committee. After visiting the summit of Mount Hermon and various places of particular interest on its slopes, the camp was established for several days at Banias. Here, as elsewhere, much time was devoted to photography. Having thus arrived in their proper field, they turned eastward toward the desert and went forward to the borders of Trachonitis, arriving there on September 15th. Their course was next southeast to Salchah by way of Zorah. They now turned westward to Bozrah and Edrei, and from there went on to Remthel and Jerash, visiting many important sites on either side of their main line of march, including Umm el-Jemal which lies out in the desert southwest of Bozrah. Mr. J. Harvey Treat failed to recover from a severe cold, contracted while doing duty as night watchman at Remthel, and it became necessary to move him from Jerash to es-Salt. From this place he was taken to Jerusalem in a palanquin borne by mules. Dr. Merrill, after acting as his companion on this journey, returned to camp. The concluding days were spent in visiting Amman, Heshbon, Meshetta, Mount Nebo and Arak el-Emir. After crossing the Jordan at Jericho, the return journey to Beirut was made by way of Jerusalem. Sixty-six days were spent in the field, and of this period more than two weeks were used in reaching the East Jordan district and in returning to the home base at Beirut.

The work of the photographer was at all times exceedingly difficult and occasioned much delay. Wherever pictures were taken, it was necessary to set up a specially prepared tent for the development of the negatives, and frequently water for this purpose had to be transported from great distances, even as far as sixteen miles. However, the excellent results of all this care and effort gave great satisfaction. More than one hundred views of ruins and localities seldom visited were obtained, the negatives being of two sizes, $9\frac{1}{2} \times 12$ and 12×16 . These plates were later sent to America, where they were stored away and forgotten. Recently seventy-nine of them have been dis-

covered in a surprisingly good state of preservation, as is attested by the accompanying illustrations.³

These pictures were offered, first of all, to patrons of the Society and then to the general public at the rate of \$200 for the full set, or \$2 each for smaller quantities. Copies of the entire collection were also prepared by the Heliotype Printing Company of Boston, and some sets are still preserved in American libraries. A complete catalogue of the views was first printed in Beirut in 1875, and the same material was incorporated subsequently in the Fourth Statement (pp. 101-113).

Col. Lane's preliminary report to the Advisory Committee, bearing the date of November 18, 1875, was never published. A later and fuller report, written while he was still in Beirut (December 13, 1875), appeared in the Fourth Statement, as did also the accompanying report of Dr. Merrill as Archaeologist. Col. Lane was very emphatic in his judgment that a reconnoissance survey like the one just concluded could never be of permanent value, because the data were not sufficiently accurate for an exact map. As to the possibility of such a map, he expressed himself as follows:

If it be the desire of the Palestine Exploration Society to produce, through their engineers, a map of Palestine east of the Jordan to be joined with the English map of Palestine west of the Jordan on the completion of the respective surveys, such a map will be impossible to construct based on any series of reconnoissances.

It was his idea that a force of ten men should be put in the field for a period of three years and that an annual appropriation of \$25,000 should be solicited for this purpose. He would include in the survey the territory eastward from Mount Lebanon to Damascus, together with its plains and lakes, also Trachonitis and Jebel Hauran as far as Salchah; thence his proposed eastern boundary would run southwest through the plains of Bozrah and on through Amman, Meshetta, Ziza and Kerak to the southerly point of the Dead Sea, making a total extent of 8,921 square miles. He described the three varieties of terrain to be found within this area, and suggested the proper method of survey in each instance. He closed his report by requesting permission to return to America to prepare his final official report and to perfect arrangements for the comprehensive undertaking that he had outlined.

The Advisory Committee at Beirut, while commending Col. Lane's report as an able document, felt that a scheme so ambitious would encounter in-

³ To Dr. Joshua Bloch of the New York Public Library and to Dr. Emil Kraeling of Union Theological Seminary we are under great obligation for valuable assistance in obtaining such successful prints.

superable obstacles, and consequently refused to endorse his recommendations. They would reduce the area to be covered to 6,000 square miles, would send out a smaller party without any military regime, felt that it would be folly to think of carrying through the undertaking by "the strong arm," and would save much money by establishing a base of operations close to the field where work was to be done. They called attention to the ominous outlook in Turkey, and expressed the conviction that for portions of the region under consideration nothing beyond a reconnoissance would be possible while the existing political situation continued. At the same time, they felt that the Society could accomplish, by patient perseverance, all that was possible and urged that it go forward with the work to which it was publicly pledged. Any other course would mean the loss of all that had been achieved thus far, "besides other consequences which, as loyal Americans, we are extremely reluctant to contemplate."

Contrary to the wish of the Committee, Col. Lane persisted in his determination to return to America, and his connection with the Society must have terminated shortly thereafter, since the Fourth Statement, published early in 1877, has no word regarding any activity on his part beyond that reported above. The financial situation at home would have precluded, for the time being, any thought of such a survey as that suggested by Col. Lane, had all other conditions been favorable, which was not the case. Later developments showed that the apprehensions of the Advisory Committee were fully justified. Under the circumstances, the only choice open to the Society was to curtail its work.

A bulletin sent out during the year (1876), after referring to the surveys of Lieut. Steever and Col. Lane, announced that triangulation had been suspended, but that the archaeological work still went on. The paragraph recalling what had been done closes thus:

It is much less than we could have desired, but as much as could well have been expected, all things considered. Besides the difficulty of finding a competent engineer, we have been hampered all along by poverty of means. The financial embarrassment which began about three years ago has been growing worse and worse, but we have decided to keep the field, hoping soon to see brighter skies.

These words contrast strangely with the glowing reports that reached England regarding the large and easily obtained resources of the American Society.

DR. MERRILL'S EXPEDITIONS

In pursuance of the new plan, Dr. Selah Merrill was placed in charge of the work of exploration on Dec. 3, 1875, and continued to serve in this

capacity, under the advice and direction of the Advisory Committee, until the summer of 1877, when he returned to America. He conducted, in this manner, three expeditions, two of which are quite fully reported in his well-known volume, "East of the Jordan." Of the first there is also an account in the Fourth Statement of the Society. On this tour he had as companion, interpreter, and general assistant, Mr. Henry L. Van Dyck of Beirut. They set out on February 14, 1876, and were in the field eighty-one days.

They first proceeded by easy stages down the Jordan Valley as far as Wady Zerka Main and the hot springs of Callirrhoe; here they turned eastward to Meshetta and thence northward to Amman, Kalaat Zerka, and after visiting es-Salt, advanced along the ridge of the Hills of Gilead as far as the Sea of Galilee. Particular attention was devoted to archaeology, natural history, and also to the life and customs of the people.

Dr. Merrill's final tour began on March 7, 1877, and lasted thirty-eight days. Mr. Henry L. Van Dyck was again his assistant. Crossing the Jordan at its exit from the Sea of Galilee, he went in a northeasterly direction to Nawa; and then turning south, he went on to Mezeirib, Edrei, el-Husn, and Ain Jemeh. Some time was spent in exploring the Jabbok Valley and the neighborhood of Amman. His return journey from the Jericho Ford was along the upper edge of the Jordan Valley.

During the two years that he spent in the field, Dr. Merrill gained an intimate knowledge of the East Jordan territory, and his investigations did much to prepare the way for future explorers. He was remarkably successful in dealing with the natives. At all times he was especially interested in the identification of Biblical sites; and in addition to special articles published from time to time for various journals, much space is given to this subject in his official reports.

With the expert aid of Mr. Van Dyck, he made a large collection of Palestinian birds, some of which are now found in the Biblical Museum of Union Theological Seminary, New York. After his return to America in the summer of 1877, Dr. Merrill was retained for a time by the Society to write reports and to coöperate with Dr. Rudolph Meyer, the Assistant Engineer of Col. Lane's Expedition, in the preparation of maps. The Fourth and final Statement of the Society was published in June, 1877; and, apart from Col. Lane's report, discussed above, and the accompanying report of the Advisory Committee, it is devoted largely to Dr. Merrill's report as Archaeologist of the Expedition of 1875, and to his account of his own explorations in 1876. Of one expedition to which Dr. Merrill alludes, no record has been preserved.

Thus far no accounts have been discovered of the subsequent activity of

the Society. It seems probable that when the Committee found it impossible to carry out a worthy program, it was thought best to turn over the materials in hand to the English Palestine Exploration Fund which was just about to publish the maps and Memoirs of the survey west of the Jordan. In the July number of the Quarterly Statement of the Palestine Exploration Fund for 1879, announcement was made that this was to be done and that a map of thirteen sheets, embodying the results of the reconnoissance survey east of the Jordan would be published in the same manner as the English work, and by the same department of Her Majesty's Government. It is further stated that memoirs and name lists to accompany the map would be published in like manner. On March 16, 1880, it was reported that the American reconnoissance map had been photozincographed and was ready for use, but in the same context it is stated that it had been found impossible to incorporate this map with the exact survey west of the Jordan. The attempt to connect points that were common to both revealed discrepancies too great to be overcome. Thus, while the map made an important contribution to the knowledge of the country, it was in no way final and could be regarded only as a preliminary investigation.

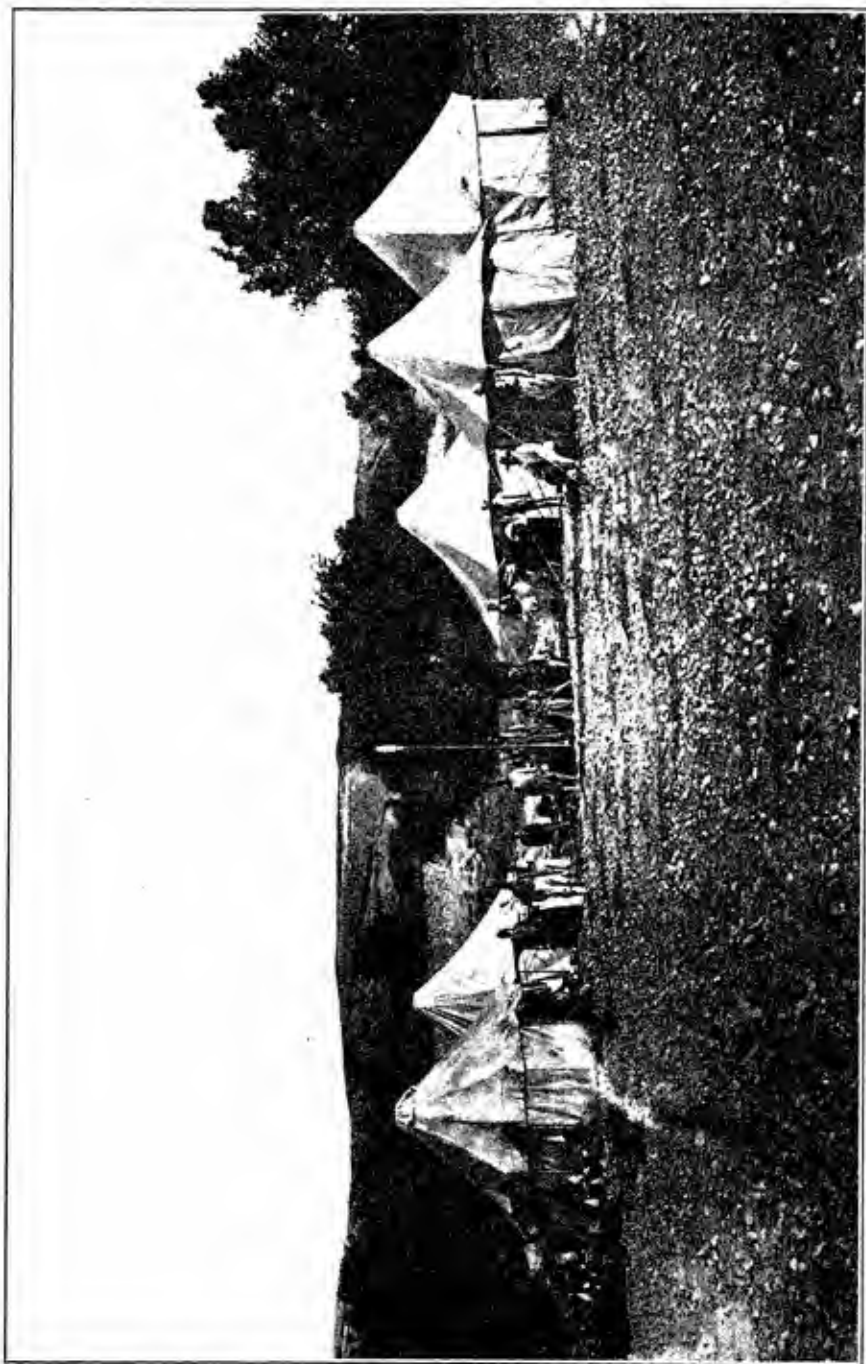
Such a disappointing outcome, it will be remembered, had been foreseen by Col. Lane, who insisted that the observations of a reconnoissance party, however carefully taken, would be of no value for location, save when they were recorded upon an accurately plotted map of the whole surrounding territory. The map of Kiepert that appears to have been used for the purpose by the American party was utterly inadequate. Just why no effort had been made to correlate the work east and west of the Jordan while the surveyors were still in the field is hard to understand at this distance from the facts.

As we look back over the history of the American Society, we can see, as was not possible at the time, the difficulty and the magnitude of the project that had been undertaken. As originally conceived, it was a well-nigh impossible task. Much of the territory involved was terra incognita and even now is waiting for full exploration. When, at a somewhat later date, the Palestine Exploration Fund undertook to carry out an exact survey in this same area, they were obliged to abandon the work after triangulating 500 square miles, because of the opposition of the Government, and the threatening outlook in Egypt and the Near East. Since that time, it is only with greatest difficulty that progress has been made toward a satisfactory survey.

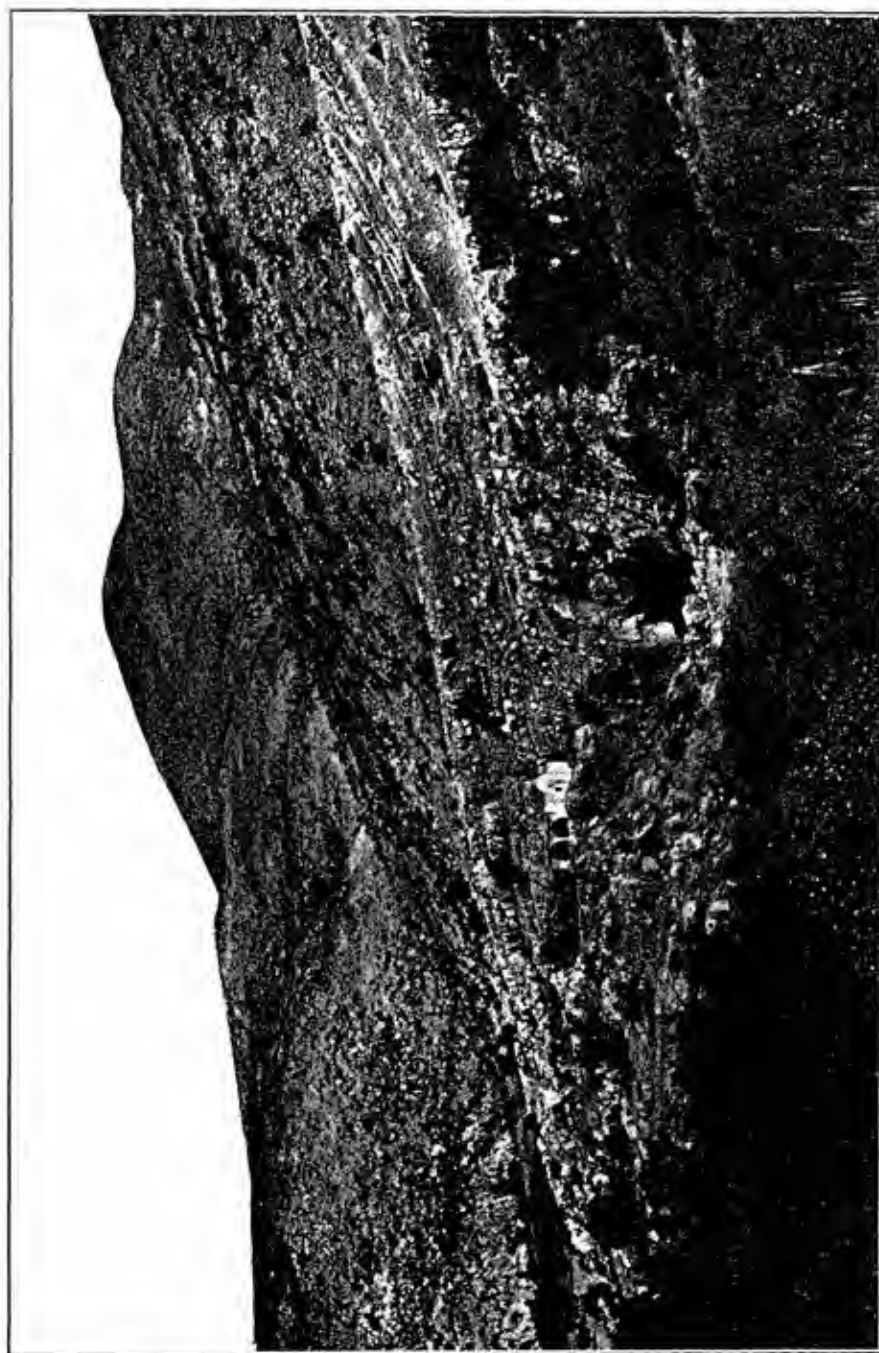
In the second place, the employment of military engineers who were without experience in similar undertakings, and also without any particular knowledge of Biblical learning or interest therein, did not prove advantageous.

Above all there was always the distressing financial situation at home.

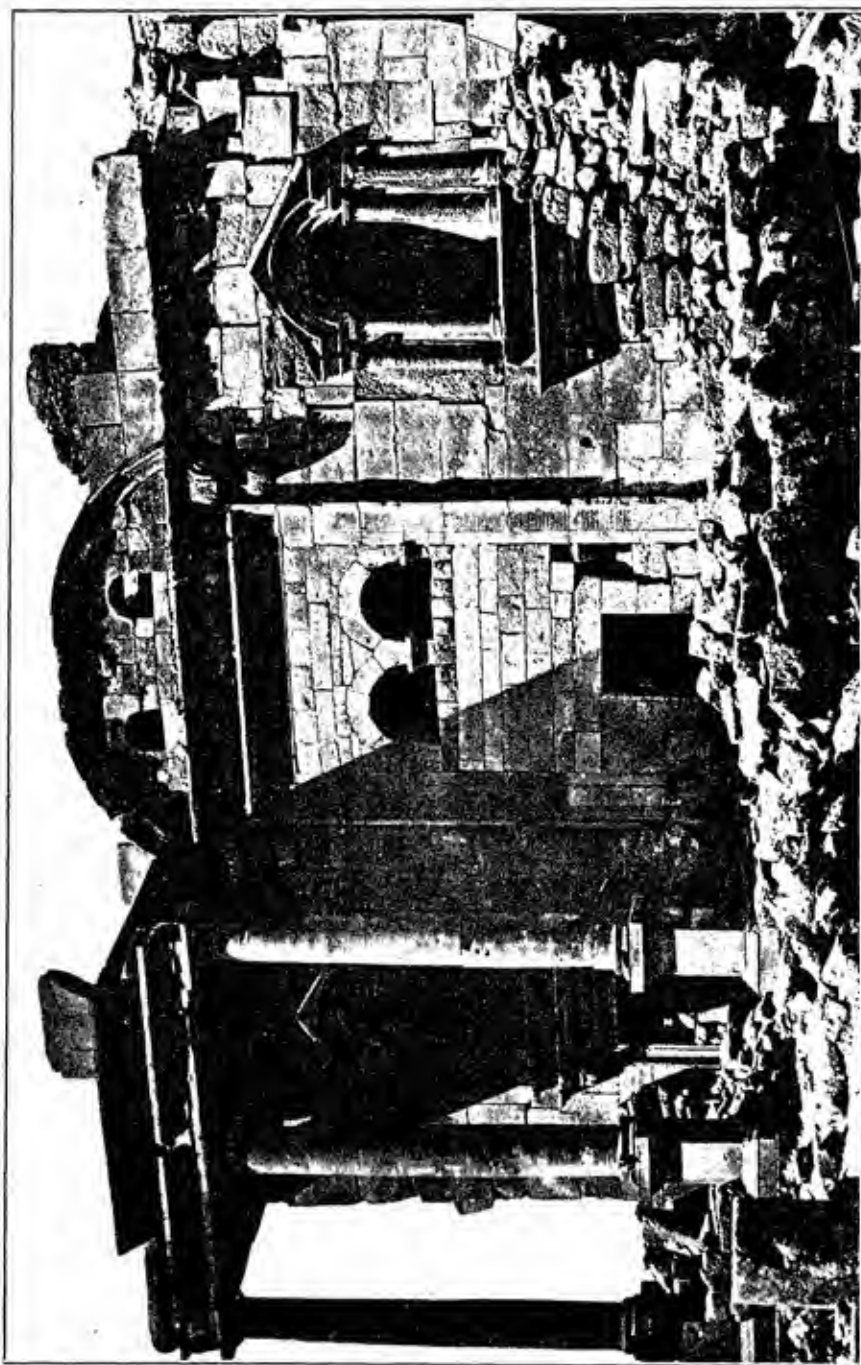
While fifty years have sufficed to change other conditions, the last named handicap still bars the way. We now have leadership of superlative quality, and we are confronted by tasks no less important than those that called the early Society into being. They are even more challenging. Meanwhile the work of the American Schools at Jerusalem and Bagdad awaits adequate financial support. We are reluctant to think that this can long continue. The splendid accomplishments of recent years with utterly insufficient resources should serve to usher in the day of adequate endowment. There could be no finer tribute to the memory of a long line of eminent American scholars who received not the promises, but saw and greeted them from afar.



CAMP OF THE EXPEDITION OF THE AMERICAN EXPLORATION SOCIETY EAST OF THE JORDAN (1875)



THE GROTTA OF BANYAS

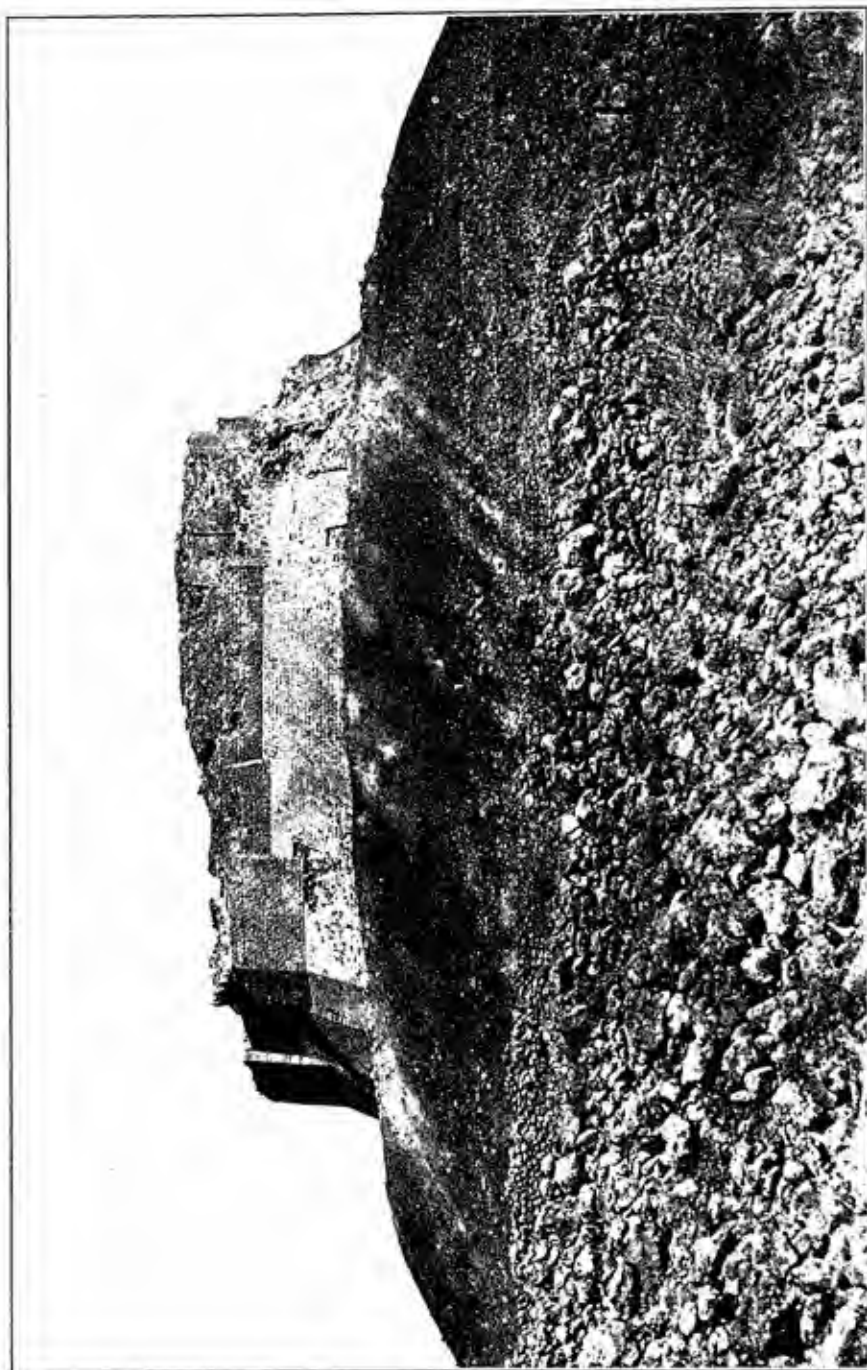


THE TEMPLE OF MUSMEIH

This is in the north end of Trachonitis about ten hours south of Damascus

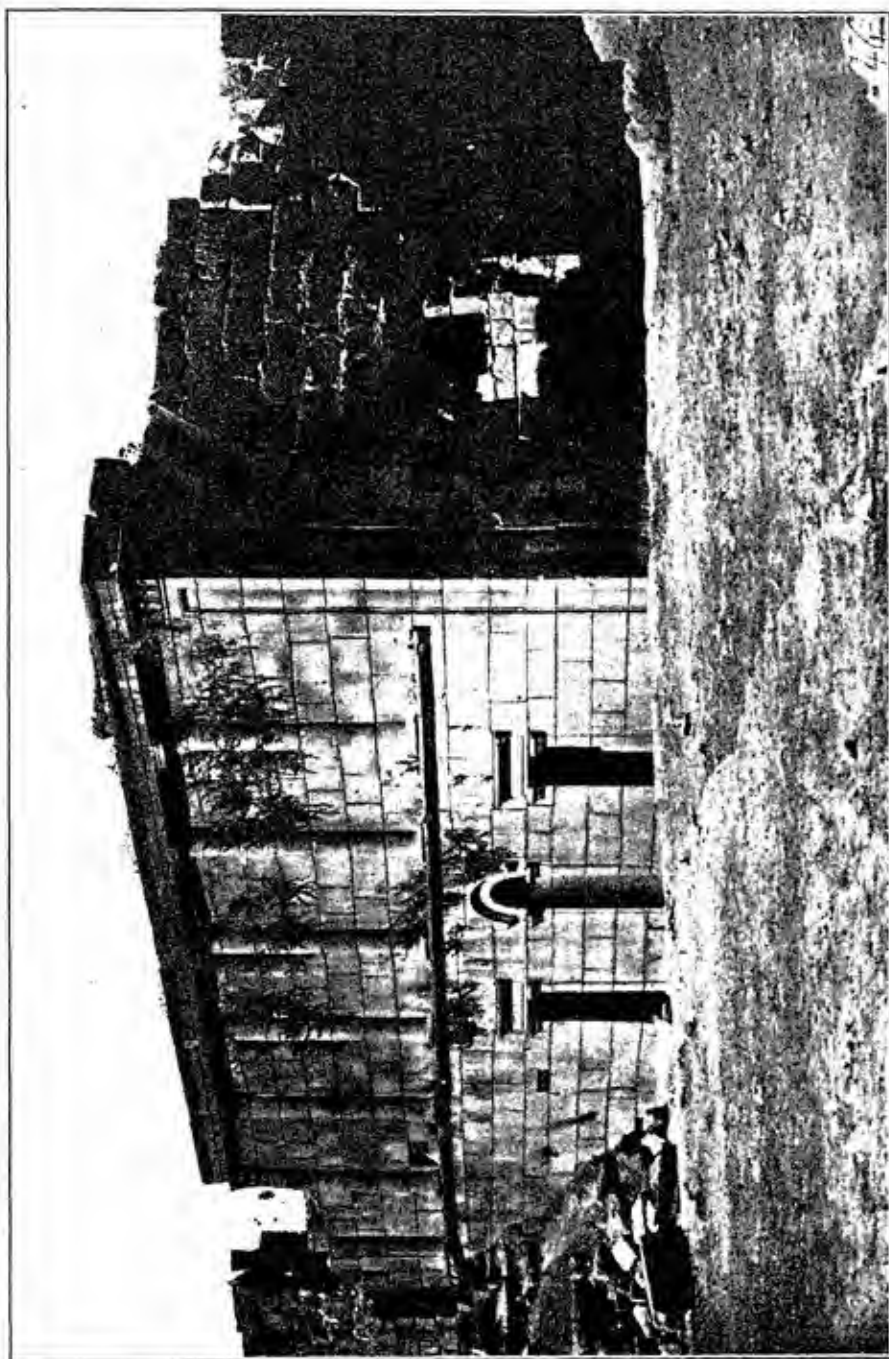


THE TEMPLE OF K'UNAWAT, FROM THE NORTH-EAST

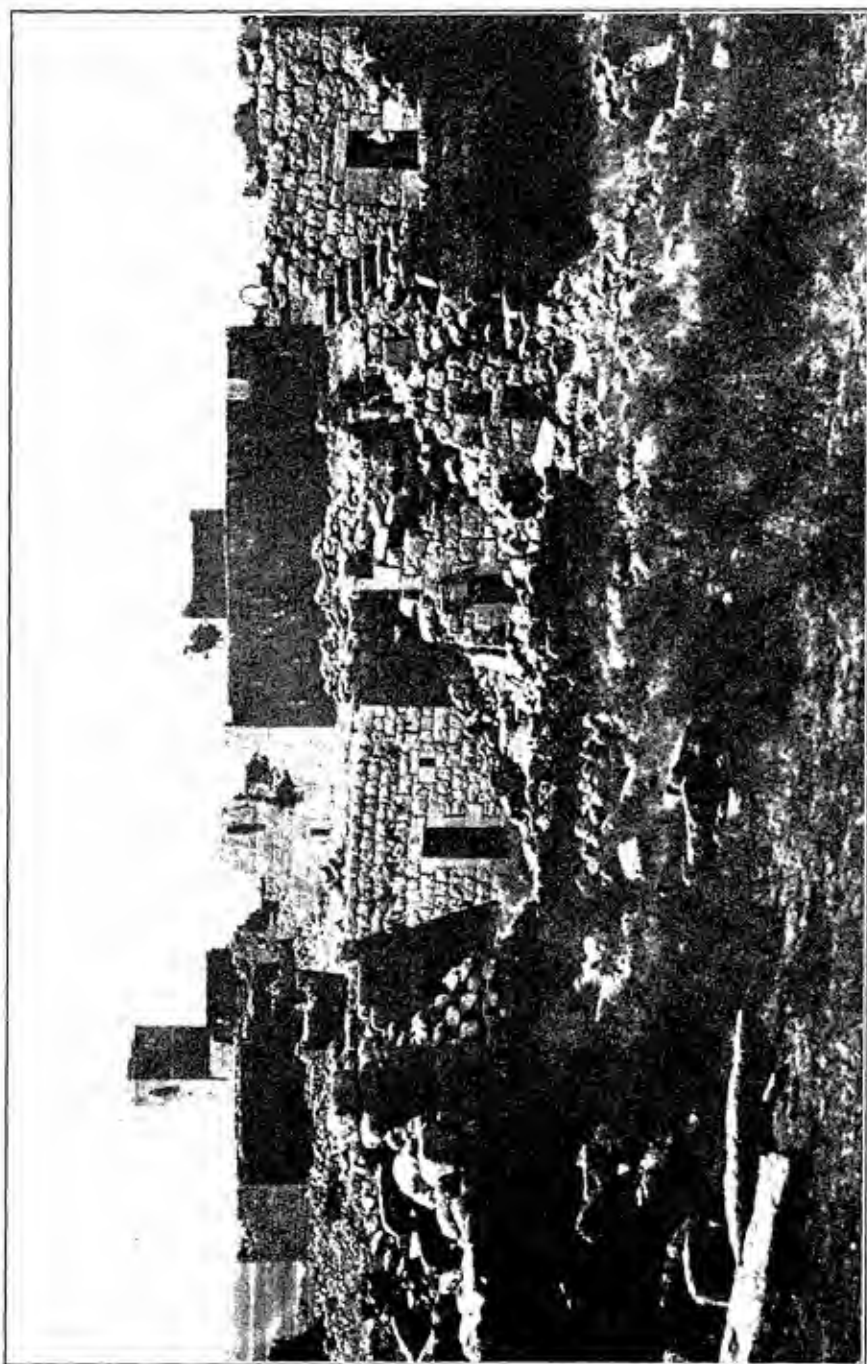


THE CASTLE OF SALCHAH, FROM THE WEST

This imposing fortress commanded a view of the surrounding country for many miles

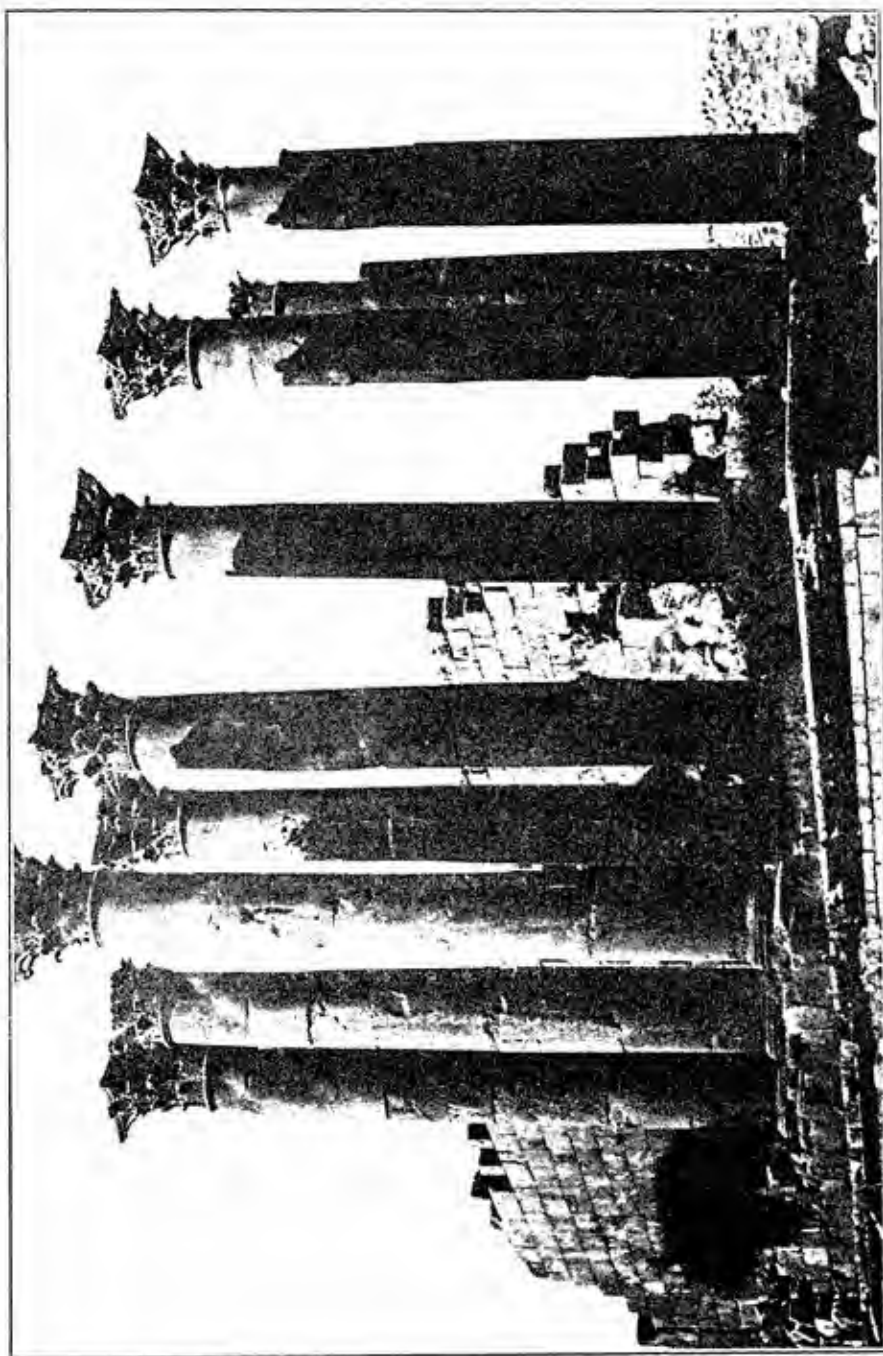


THE THEATRE AT BOZRAH
Exterior view of one of the chambers adjoining the stage

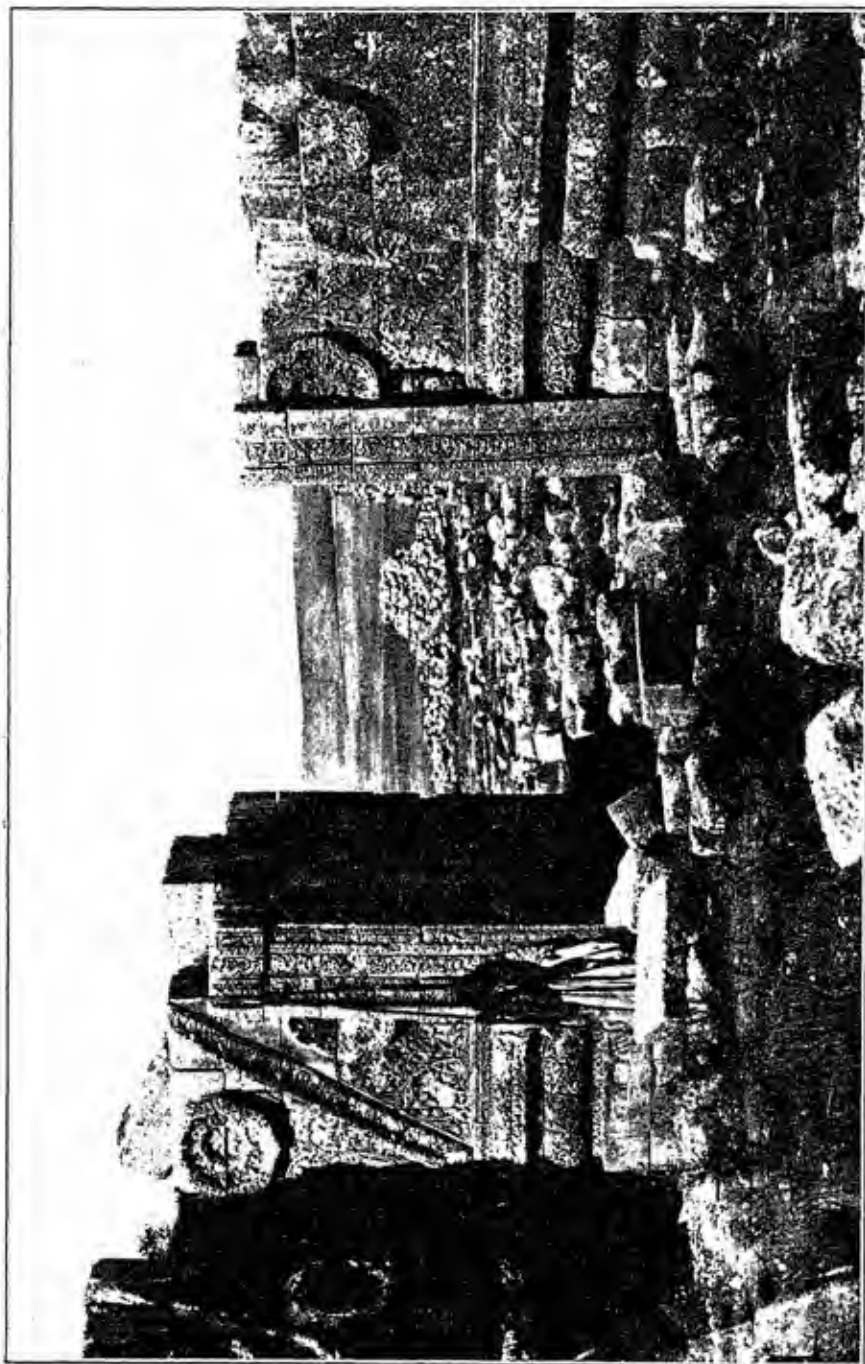


CHURCH AND CONVENT AT UMM EL-JEMAL

These ruins are situated in the desert sixteen miles South-west of Bozrah



THE TEMPLE OF THE SUN AT JERASH AS SEEN FROM THE SOUTHEAST



ENTRANCE TO THE RUINS OF MESHETTA

ON THE SO-CALLED SUMERO-INDIAN SEALS

GEORGE A. BARTON

Within the past few years surprising archaeological discoveries have been made at Harappa and Mohenjo-daro in India. Among the finds a large number of inscribed objects, rather unhappily called 'seals,' have been exhumed, some of which bear characters closely resembling those of the early Sumerian script. This fact has raised the question of possible prehistoric connection between Sumer and India, and some have assumed that such a connection has been proved. As such a fact, if established, would be of the greatest interest to all workers in Mesopotamian archaeology, the writer undertook a year ago to examine the basis on which it rests, and, for the benefit of those interested in the work of the School at Baghdad, presents here a preliminary report of his conclusions.

In order to present the matter clearly, it is necessary to make a brief statement concerning the two sites where these 'seals' have been found and of the other archaeological objects discovered with them. As long ago as 1912 three seals were found at Harappa and published in *JRAS*,¹ but practically nothing was known of the civilization which produced them until an excavation was made at Mohenjo-daro in 1922. Since then excavations have been made at both sites from year to year under the direction of Sir John Marshall, Director General of Antiquities for India. Mohenjo-daro is in the Larkana district of northern Sind on the Indus. Thousands of years ago the river flowed in the channel now called Western Nara, on which Mohenjo-daro is situated. Along this old bed of the Indus the ruins of many ancient cities of the copper age are said to exist. Before the birth of Christ the Indus changed its course and flowed along the bed of an older river called the Hakro, now called the Eastern Nara. To this change in the course of the Indus is due the preservation of the antiquities of Mohenjo-daro.

The excavations here have revealed in three strata the remains of three cities, one above the other.² The constructions are of burnt brick, laid sometimes in mortar made of lime, but oftener of gypsum. The workmanship

¹ See the article "Seals from Harappa" by Arthur Venis, *JRAS*, 1912, 699-704.

² See the *Archaeological Survey of India, Annual Reports*, named in the bibliography given below. Sir John Marshall dates the three strata at 2700 B. C., 3000 B. C., and 3300 B. C. respectively. Others regard these dates as too early. There seems at present no decisive criterion for determining their antiquity.

of the structures in the lowest stratum is the finest; that in the upper stratum, the poorest. The area excavated covers about 5 hektars. On an elevation in the northwest corner of the city, under the ruins of a later Buddhistic stupa, the ruins of the chief temple of the ancient city were found. The brick-work of this structure, both in the walls and the pavement, is not unlike that made at Ur in the time of the last dynasty of that city. A reservoir or pool was also found at Mohenjo-daro, which reminds one of the AB-SU at Lagash constructed by Ur-Nina and his successors. Like the one at Lagash, this pool served some ritualistic or symbolic purpose. It has been suggested that it was intended for sacred fishes or crocodiles, but that remains to be proved. On the two sides of the pool steps led up to a small standing-place.

Southwest of the temple and separated from it by a narrow alley were the ruins of another large building with massive outer walls. The ruins of this building had been leveled off at a later time and made the foundation of an extensive terrace, over a hundred feet long. The metal objects found in this level, of which more will be said below, show that the structures belong to the pre-bronze or copper age.

Harappa in the Montgomery district of the southern Punjab was built on the shore of an ancient bed of the Ravi and is about 450 miles from Mohenjo-daro. The upper strata at Harappa were unfortunately destroyed, but in the stratum corresponding to the lowest at Mohenjo-daro a large building 51 x 41 meters, is tolerably well preserved. A broad entrance divides it into two halves, and it contained a number of corridors and small rooms. In this building a series of copper weapons and implements were found: the knob of a club or sword-handle; two double axes; seven daggers; two points of lances; sixteen spear-points; thirty-four chisels; a saw and two chopping-knives. Two of the daggers and two of the chisels bear hieroglyphic inscriptions similar to those on the seals. About 150 seals and seal impressions in terra cotta were also found. Of these more will be said below.

Numerous spindle-whorls were found, indicating that they understood the spinning and weaving of wool. Evidence that they knew fabrics made of some vegetable substance seems also to have been found. The men of the upper city at Mohenjo-daro wore short aprons and a kind of strap which went over the left shoulder and left the right arm free. In the lower city they were nude. They wore side-whiskers and a beard on the chin, but shaved the upper lip. The one statue of a woman found had the hair hanging loose. As domestic animals they knew the Indian ox, the buffalo (*bos babalus*), a kind of short-horned cattle, sheep, pigs, the dog, and horse. No trace of the camel or the cat was found. Of wild animals they knew the tiger, rhinoceros, and elephant, but no trace of the lion was found. They raised a sort of

wheat of a variety still found in the Punjab. Of metals, they knew gold, silver, copper, tin, and lead. Of bronze (a mixture of copper and tin) they made little use. A great variety of beads and ornaments was found. Necklaces and finger-rings were worn by both men and women; ear-rings, arm-bands, girdles, and anklets, by women alone. A great variety of pottery was found, but most of it had no handles.

Inscribed seals and artistic objects of various kinds were found in almost every house. The use of writing was quite widespread. The number of seals and seal-impressions discovered is said to be about a thousand. Of these not a tenth has as yet been published. The writer has seen and studied seventy-two inscriptions. For most of them we must await the great three-volume work that is being prepared by Sir John Marshall and his co-laborers. The selection reproduced here will enable the reader to form an estimate of the degree of artistic skill attained by the men of most ancient India.²

The main purpose of this paper is to discuss the possible relation of the civilization of Mohenjo-daro and Harappa to that of the Sumerians of ancient Sumer. When in 1924 Sir John Marshall first published an article on this ancient civilization in *The Illustrated London News*, it at once attracted the attention of the veteran scholar, Professor A. H. Sayce, who, a week later, in an article in the same journal called attention to certain likenesses between the art and script on the seals and those of similar objects from ancient Elam and Babylonia. He thought the seals comparable to the "tablettes de compatibilité" discovered by de Morgan at Susa and published in his *Délégation en Perse*, Vol. VI, pl. 12 ff. and Vol. XVII, which came from the third millennium before Christ. He suggested that one of the seals bore a cuneiform inscription, to which a text in the Indian script had been added later.

Some twelve days later, a joint article by C. J. Gadd and Sidney Smith, both of the British Museum, appeared in the same journal, and carried the comparison with Babylonia still further. Gadd found sixteen signs which he thought could be equated with Sumerian signs; he pointed out that the brick-work resembled Babylonian brick-work of the third dynasty of Ur and gave illustrations (p. 616); he further thought that the artistic execution of the pictures of bulls on the Indian seals resembled the Sumerian execution of the same kind of subject.

Apparently it was these articles that gave L. A. Waddell his cue. At any rate in the next year he published his *Indo-Sumerian Seals Deciphered*, in which he claimed to have successfully read nineteen inscriptions,—a claim that a study of his book convinces us is mistaken. Fascinated by Dr. Wad-

² The drawings on pages 90-93 have been made by Mr. Coleman S. Mills, of Philadelphia, from the *Archaeological Survey of India, Annual Report, 1924-1925*.


dell's work, an Indian scholar, R. S. Vaidyanatha Ayyar, published later his *Sumerian Origin of the Laws of Manu*, Madras, 1927. It was because of the extraordinary claims of these works that the writer turned his attention to these documents. It appeared to be time that a student of Sumerian civilization should acquaint himself with the facts on which such claims were based.

A close examination of the seals revealed the fact that the number of the Indian signs which could with probability be called Sumerian was pitifully small, while some of them reminded one of certain signs of the so-called Hittite hieroglyphic inscriptions. A comparison with that script accordingly followed. One day a Chinese student saw some of the script and at once remarked that some of the characters resembled ancient Chinese; that made it obligatory to institute a comparison of Chinese. The comparison was then naturally enlarged to include also Elamitic, Egyptian, Cretan, and Cypriote, as well as Sumerian, Hittite, and Chinese. As the work advanced a larger number of inscriptions became accessible. Up to the present time the writer has studied seventy-two inscriptions, and has from them prepared a sign list of 124 different signs not counting 51, which are some of them certainly, and others probably, mere variant forms. Of these 35 might conceivably be Sumerian, though but four of these resemble Sumerian signs with sufficient closeness for one to say confidently that they are Sumerian. Other signs differ so widely from Sumerian as to prove at once that the writing is the product of a development quite distinct from the Sumerian and independent of it. One need only cite here the different ways in which the human form is represented in the two scripts. In the Indian script there are five signs (six, counting a variant) representing the human figure. Four of these represent a full-face view of the whole figure, and two, a side view, but they are all made much more in the style of Egyptian hieroglyphs of the human figure than the Sumerian. In Sumerian we have but one sign representing a complete human form,⁴ and that is a most awkward and distorted picture. The idea of human being was usually expressed in Sumerian by a mere torso.⁵ Again, to take but one more example, the signs derived from pictures of pottery in the Indian script are made in quite a different way from signs in Sumerian derived from the same class of objects.⁶ Those in the Indian script resemble much more closely signs of the same class in the Hittite and Cretan

⁴ See No. 206 in Barton's *Origin and Development of Babylonian Writing*.

⁵ For different Sumerian representations of parts of the human body, see the Pictographic Index on p. 174 of Part I of the work cited in the preceding note.

⁶ See Barton, *op. cit.*, Part I, 185 f., for a list of the pictures of pottery in Sumerian writing.

scripts. One sign, , resembles the sign for 'sheep' in Sumerian, (Barton, No. 482), though in Sumerian it has 51 other ideographic meanings. The Sumerian sign was probably derived from a representation of a sheep-fold or enclosure. The Indian sign resembles, however, quite as closely a Chinese sign which is an outline of a divided field (Chalfant, No. 184); and still more closely a sign in Proto-Elamite, (Scheil, No. 223), the meaning of which is as yet undetermined. It cannot, therefore, be taken as Sumerian. The similar forms in these widely separated scripts must be regarded as independent developments. The same must be said of some other signs. Representations of a double headed axe appear in the Indian script (beside the main picture there are five variants of it); also in Sumerian,⁷ Elamite,⁸ Cretan⁹ and Cypriote.¹⁰ The bow is found in Sumerian,¹¹ Elamite¹² Egyptian,¹³ and Chinese.¹⁴ Of these the Elamite picture more nearly resembles the Indian than any of the others. The Sumerian representation is less like the Indian than any of the others. A bow and arrow appear in Indian,¹⁵ Elamite,¹⁶ and Chinese.¹⁷ In short a detailed comparison of the 124 signs of these 72 brief inscriptions proves indisputably¹⁸ the independence and originality of the Indian culture revealed by the excavations at Harappa and Mohenjo-daro. It is as original as that of China, Elam, Sumer, the Hittites, Egyptians, or Cretans. One inscription only could be Sumerian, No. VI in Fig. 45.

A comparative study of the examples of this new script that are so far accessible also proves that it had already undergone a long period of development when these inscriptions were written. This is shown in various ways. It will be sufficient in this preliminary report to give one or two examples of the kind of proof that is available. On one of the seals a sign occurs which is clearly the head and neck of a horse wearing a bridle.¹⁹ Six different

⁷ Barton, No. 594.

⁸ Scheil, No. 11.

⁹ Evans, No. 36.

¹⁰ Deecke, No. 34.

¹¹ Barton, No. 394.

¹² Scheil, 140.

¹³ See under "Weapons" in either of the Egyptian sign-lists mentioned in the bibliography.

¹⁴ Chalfant, No. 211.

¹⁵ *Archaeological Survey of India, Annual Report, 1924-25, Pl. XXVIII, No. 22.*



¹⁶ Scheil, No. 145.

¹⁷ Chalfant, No. 225.

¹⁸ The comparative table will be published in the near future.

¹⁹ See Fig. 45, No. IX.

variants of this sign occur in the seals, and all of them except this one are so conventionalized that but for this clear picture, we could not tell what the original was. As it is they form a graded series, which does not leave the origin in doubt.

Another example is afforded by the pottery signs—signs derived from pictures of earthen-ware pots. There are two of these:  and , signs that are so conventionalized that it is only by comparative study that their origin becomes evident. Fortunately in the Hittite²⁰ script and in Cretan²¹ we have inscriptions where the full form of the jar appears, and others in which it is represented, as here, in outline only. Since the series in these two scripts is so convincing, and since it is also clear that Cretan and Hittite developed quite independently of one another, it becomes probable that in developing such signs the minds of men in another portion of the world would work in the same way. We can with considerable confidence, therefore, assume that the two signs in question are outlines of different shapes of earthen-ware jars, but, the fact that the full picture has become so skeletonized, is evidence that, when these seals were written, the writing was not in its earliest stage of development.

Again, we have a sign, which appears twice, that seems to be an outline of a turtle,²² but it is far more skeletonized and much less of an original picture than the turtle sign in Elamite,²³ or in early Chinese.²⁴

Since the original hieroglyphs are so conventionalized it will be impossible to classify them all until the script is deciphered and the investigator can test his conjectures from the form of the sign by its signification. Bearing that fact in mind, and fully realizing that in many cases an opinion formed now must be held subject to correction, the writer has been able to make the following tentative classification. Five signs are derived from the human form. Three are possibly human arms and hands. One is, as has been said, the head of a horse. Four are pictures of fishes. Two are probably turtles. Ten are pictures of plants. Seven are derived from representations of the sky, the sun, moon, and water. Two may represent buildings. One is clearly an altar. Three are implements of war. Two are derived from pottery. Eighty-three are as yet unclassified. Of these one of the pottery signs and one of the fish-signs occur most often in the inscriptions studied. A probable reason for this will appear at a later point of the discussion.

²⁰ See Cowley, *Hittites*, p. 88.

²¹ Cf. Evans, No. 47.

²² See *Archaeological Survey of India, Annual Report*, 1925-26, Pl. XXVIII, No. 6.

²³ Cf. Scheil, No. 916.

²⁴ Cf. Chalfant, No. 10.

Before turning from the evidence of the script, it should be noted that the four signs on Fig. 45, No. VI, look like Sumerian. If so, they could be read LIL-LIL-Ā-EN,²⁵ which might be a proper name, 'Lillilaen,' or 'Lillila, lord.' If this be the correct reading of this inscription, it in no way disproves the correctness of the conclusion already reached, that the script of these seals is an indigenous Indian script quite independent of Sumer. The bullock and altar portrayed on the seal are of the Indian type; not the Sumerian. Whoever offered the sacrifice, was doing it as a resident of India. He may have been a Sumerian resident there. At the most the seal would prove commercial intercourse or travel between Sumer and India.

Another interesting point revealed by this study is that the Indians, like the Sumerians, Egyptians, Hittites, etc., made their notation of numerals by straight lines, a short perpendicular line, repeated the proper number of times, being employed for each numeral up to ten. They also employed what seems to be a decimal system of numbers, and indicated the tens by the requisite number of longer lines. Thus, in No. XVI, Fig. 46, we have the numeral 37. The original Sumerian numerical system was sexagesimal; the decimal system not having been adopted by them until after contact with another race—perhaps the Akkadian Semites.²⁶ The presence of a decimal system in India would, therefore, be an argument for an origin distinct from the Sumerians.

Another argument employed to establish a connection between Sumer and this ancient civilization of the Indus Valley has been the similarity of the representations of the necks of bullocks in the art of the two countries. In both countries lines were employed to depict the folding skin of the neck. Attention was called to this similarity by Gadd and Sidney Smith in 1924,²⁷ and in the present year, 1928, Smith has called attention to the matter again,²⁸ reinforcing his argument by a seal found at Ur by Woolley in 1926,²⁹ the bullock on which resembles those of Indian art more closely than any previously known. If, however, this common artistic feature indicates similarity of influence, it would seem that we should include Egypt in the circle of that influence, for the same feature is to be seen on the necks of some pre-

²⁵ The signs could also be read GĒ-GĒ-Ā-EN, "Gegea, lord."

²⁶ Cf. Barton, *A Sketch of Semitic Origins*, p. 170 f. The statement made there needs some modification. The names of the Sumerian numerals show that underlying the sexagesimal system there is a quintal system. There are separate names for the numerals from one to five, but the name for six is five-one, for seven, five-two, and so on up to ten.

²⁷ *Illustrated London News*, Oct. 4th, 1924, p. 616.

²⁸ *Early History of Assyria to 1000 B. C.*, pp. 49-52.

²⁹ *The Antiquaries' Journal*, VIII, Pl. IX, No. 2.


historic bullocks depicted on a plaque found in Egypt.³⁰ Hommel has long contended that Egyptian civilization was derived from Babylonia.³¹ While such a claim is on the whole not valid, it is true, as Petrie has perceived,³² that at a definite period of pre-dynastic history Babylonian and Elamite influences can be traced in Egypt. It would seem to the writer, however, to be an open question, whether this artistic method of representing folds of skin on a bullock's neck is not one of those similarities that result from the psychological unity of mankind. Confronted with the same materials and the same problems in different parts of the world, men have, independently of one another, solved many of their problems in the same way. Is not this artistic device another instance of this?

Although the new Indian script cannot be read, it is possible tentatively to form some opinion of the contents and to some degree of the meaning of the inscriptions. The larger number of the inscribed seals studied picture a bullock, with one long horn, standing with his head over an altar. There are 28 of these. That the picture in question is intended for an altar³³ seems more than probable after comparing it with pictures of altars in Sumerian,³⁴ Elamite,³⁵ Hittite,³⁶ Egyptian,³⁷ Cypriote,³⁸ and Chinese³⁹ writing. Such seals are of religious significance, and certain features of some of them enable us, in the writer's judgment, to make a fair guess that the inscription is a record of viands offered with the animal in sacrifice. Another, which is probably sacrificial, pictures a *bos Indicus* with his neck behung with garlands.⁴⁰ Another which pictures the sacred pipal tree is also probably of religious significance.⁴¹ One pictures a rhinoceros standing with his head over an altar;⁴² while another pictures a rhinoceros before which a man stands in a sort of enclosure with hands extended toward the rhinoceros as though

³⁰ See de Morgan, *Préhistoire orientale*, II, Paris, 1926, p. 140.

³¹ See *Transactions of the International Congress of Orientalists*, London, 1892, pp. 218-244, and *Grundriss der Geographie und Geschichte des alten Orients*, zweite Hälfte, München, 1927, p. 751 ff.

³² *Prehistoric Egypt*, p. 49.

³³ Waddell takes this picture of the altar, together with the head of the living animal above it, and, disregarding the animal's body, identifies the two with the Sumerian sign , EDIN, and takes it as the name for India.

³⁴ Barton, *Babylonian Writing*, pp. viii and 182.

³⁵ Scheil, Nos. 350 and 351.

³⁶ Messerschmidt, *Tafel XXIII*.

³⁷ Sign-list in Erman's *Ägyptische Grammatik*, R, No. 2.

³⁸ Deceke, No. 45.

³⁹ Chalfant, No. 157.

⁴⁰ P. 90, No. 5.

⁴¹ P. 90, No. 1.

⁴² Fig. 47 A.

in prayer.⁴³ Probably these represent religious scenes also, and indicate that the rhinoceros was a sacred animal.

Another group of pictures represent what, at first sight, seem to be domesticated animals feeding from large dishes which serve as feeding-troughs. Bullocks and elephants are so portrayed.⁴⁴ But, once a rhinoceros,⁴⁵ and once a tiger⁴⁶ are also so pictured. This fact suggests that all these picture religious scenes also, and that all these animals are being fed because they were regarded as sacred.

One is a purely hunting scene; it represents a man shooting a tiger from a tree.⁴⁷ Another is a mythological scene; it represents a fight between two imaginary creatures such as never existed on sea or land.⁴⁸ On the whole it seems probable that most of the inscribed seals had a religious significance. Even the picture of shooting the tiger from a tree may have been intended as the record of a thank-offering for the conquest of a dangerous beast. Perhaps the records of sacrifices, the pictures of sacred animals feeding, the struggle of mythological creatures, etc., were treasured and worn as amulets. This is suggested by the fact that the objects were found in houses.

Judging by the position of the numerals, the script was usually written from left to right, but could also be written from right to left.

It cannot be too strongly emphasized that the script is not yet deciphered, and the present writer makes no pretence at having done so. Nevertheless, if our analysis of the meaning and purpose of these inscribed objects is at all correct, it is possible from one's knowledge of similar objects in ancient Sumer to make shrewd guesses as to the meaning. Further, one can often tell, in looking at pictographic writing, what the topic is that is being treated, and in general what the treatment is, even when he does not know the language in which the inscription is written. Similarly Chinese and Japanese, because of their use and understanding of the same script, can often tell what sentences in the language of each other are about, and get the general tenor of the meaning, without understanding the language.

From such documents as the "Bullae" of Barnamtarra,⁴⁹ the queen of Lugalanda, king of Lagash, as well as from our knowledge of the materials

⁴³ *Illustrated London News*, Jan. 7th, 1928.

⁴⁴ See P. 90, Nos. 3 and 10.



⁴⁵ *Archaeological Survey of India, Annual Report*, 1924-25, Pl. XXII.

⁴⁶ P. 90, No. 8.

⁴⁷ *Illustrated London News*, Jan. 7th, 1928.

⁴⁸ *Ibid.*

⁴⁹ Allotte de la F  ye, *Documents pr  sargoniques*, Fasciculus I. Hundreds of similar records are contained in the tablets of this period.

of sacrifices the world over, we infer that, if many of these Indian seals are records of sacrifices, there were included, along with the animal sacrificed, other viands which the worshippers prized as food and drink. Bearing these facts in mind, and remembering that in Sumerian wine was, by a natural psychological association, expressed by an earthen jar, we suggest that the inscription on Fig 46, No. XIX read "... fishes; 7 jars of unfermented soma," and that No. XVI may have read "22 vegetables; 37 jars of fermented soma." These provisional readings are based in part on the guess that the signs  and  represented respectively the ideas "unfermented" and "fermented," the lines being added in the latter sign to indicate the electrifying effect of fermentation. It should be added that no certainty of correctness is claimed for these readings, but they are more likely to be on the right track than any of Waddell's interpretations.

The general correctness of this approach to the understanding of these seal-inscriptions seems to be confirmed by the popularity of the fish and pottery signs already mentioned. Fish was a food; soma a popular drink. These would naturally be included in sacrificial offerings. The frequency of the occurrence of these signs is, on this theory, accounted for.

BIBLIOGRAPHY.

- Venis, Arthur, "Seals from Harappa," *JRAS*, 1912, pp. 699-703.
- Marshall, Sir John, "First Light of a Long-forgotten Civilization: New Discoveries of an Unknown Pre-historic Past in India," *Illustrated London News*, Sept. 20, 1924, p. 528 f.
- Sayce, A. H., "Remarkable Discoveries in India," *Ibid.*, Sept. 27, 1924, p. 566.
- Gadd, C. J. and Smith, Sidney, "New Links between Indian and Babylonian Civilization," *Ibid.*, Oct. 4, 1924, pp. 614 ff.
- Waddell, L. A., *The Indo-Sumerian Seals Deciphered*, London, 1925.
- *Archaeological Survey of India, Annual Report*, 1922-23, pp. 102-104.
- *Archaeological Survey of India, Annual Report*, 1923-24, pp. 47-54 and Pl. XIX.
- *Archaeological Survey of India, Annual Report*, 1924-25, pp. 60-80 and Pls. XXII and XXVIII.
- "Copper Age in India," *The Times of India*, Calcutta, Oct. 29, 1927, p. 16.
- Coomaraswamy, Ananda, *History of Indian and Indonesian Art*, New York, 1927.
- Marshall, Sir John, "A New Chapter in Archaeology: Pre-historic Civilization of the Indus," *Illustrated London News*, Jan. 7, 1928, pp. 12-15.
- "Discoveries in the Indus Valley: Finds at Harappa and Mohenjo-daro," *The Daily Express*, Madras, Jan. 6, 1928, p. 3.
- C. L. Woolley, "Excavations at Ur, 1926-27, Part II," *The Antiquaries' Journal*, London, Vol. VIII, p. 26 and Pl. IX, No. 2.
- Smith, Sidney, *Early History of Assyria to 1000 B. C.*, London, 1928, pp. 49-52.
- Vaidyanatha Ayyar, R. S., *Sumerian Origin of the Laws of Manu*, Madras, 1927.
- "Ausgrabungen: Mohenjo-Daro und Harappa," *Archiv für Orientforschung*, Band IV, Berlin, p. 237 ff.

SIGN-LISTS OF OTHER SCRIPTS.¹

- Erman, A., *Ägyptische Grammatik*, 3te Aufl., Berlin, 1911.
 Möller, G., *Hieratische Paläographie*, Leipzig, 1909-1912 (3 vols.).
 Gardiner, Alan, *Egyptian Grammar*, Oxford, 1927.
 Evans, A. J., *Scripta Minoa*, Oxford, 1909.
 Deecke, W., *Der Ursprung der kyprischen Syllabarschrift, eine paläographische Untersuchung*, Strassburg, 1877.
 Messerschmidt, L., *Corpus Inscriptionum Hetticarum in Mittheilungen der vorderasiatischen Gesellschaft*, Berlin, 1900.
 ——— *Erster Nachtrag*, *Ibid.*, Heft 3, 1902.
 ——— *Zweite Nachtrag*, *Ibid.*, Heft 5, 1906.
 Cowley, A. E., *The Hittites*, London, 1920.
 Frank, C., *Die so-genannten hettitischen Hieroglypheninschriften*, Leipzig, 1923.
 Thureau-Dangin, F., *Recherches sur l'origine de l'écriture cunéiforme*, Paris, 1908.
 Barton, G. A., *The Origin and Development of Babylonian Writing*, Leipzig, 1913.
 Deimel, A., *Liste der archaischen Keilschriftzeichen von Fara*, Leipzig, 1922.
 Scheil, V., *Textes élamite-sémitique*, troisième série, in J. de Morgan's *Délégation en Perse*, Vol. VI, Paris, 1905.
 Chalfant, F. H., *Early Chinese Writing*, being Vol. IV, No. 1 of the *Memoirs of the Carnegie Museum*, Pittsburgh, 1906.

¹ Only those are mentioned that were consulted in preparing this article.



1



2



3



4



5



6



7



8



9



10



11



12



13



14



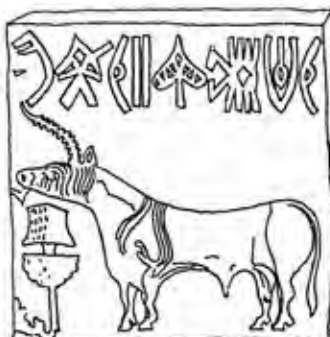
15



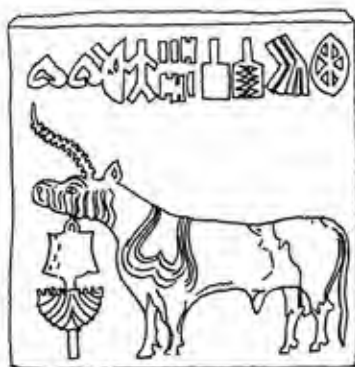
16



17



18



19



20



21







FIG. 45

From Waddell's *Sumerian Seals Deciphered*, p. 18.



FIG. 46

From Waddell's *Sumerian Seals Deciphered*, p. 19.



Full size.

FIG. 47

From the *Journal of the Royal Asiatic Society*, 1912, p. 701.



CATALOGUED

CENTRAL ARCHAEOLOGICAL LIBRARY,
NEW DELHI

Borrowers record.

913.335/ A.A.S.O.R.
Catalogue No. 913.335/Spe-4561

Author—Speiser, Ephraim A. & others.

Title—Southern Kurdistan in the
Annals of Ashurnasirpal & today
(A.A.S.O.R. vol. 2) etc.

"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY
GOVT. OF INDIA
Department of Archaeology
NEW DELHI.

Please help us to keep the book
clean and moving.